

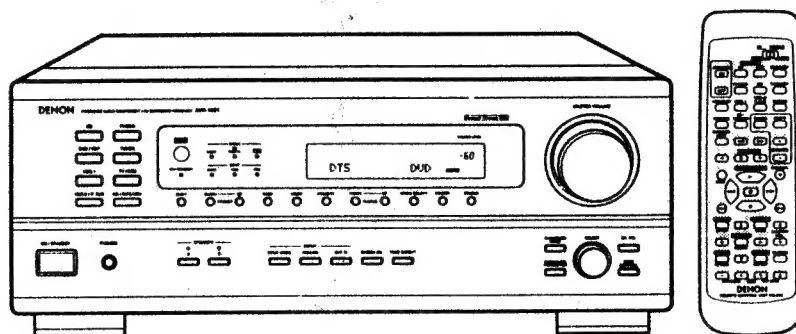
# DENON

Hi-Fi Component

## SERVICE MANUAL

### MODEL **AVR-1801/881**

#### AV SURROUND RECEIVER



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● Some illustrations using in this service manual are slightly different from the actual set.

## NIPPON COLUMBIA CO., LTD.

## SAFETY PRECAUTIONS

The following check should be performed for the continued protection of the customer and service technician.

### LEAKAGE CURRENT CHECK

Before returning the unit to the customer, make sure you make either (1) a leakage current check or (2) a line to chassis resistance check. If the leakage current exceeds 0.5 milliamps, or if the resistance from chassis to either side of the power cord is less than 460 kohms, the unit is defective.

## SPECIFICATIONS

### Audio section

#### Power amplifier

Rated output:	Front :	70W + 70W	(8Ω/ohms, 20Hz~20kHz with 0.08% T.H.D)
		105W + 105W	(6Ω/ohms, 1kHz with 0.7% T.H.D) (U.S.A., Canada & Europe Models)
		120W + 120W	(6Ω/ohms, EIAJ) (Asia Model)
Center :		70W	(8Ω/ohms, 20Hz~20kHz with 0.08% T.H.D)
		105W	(6Ω/ohms, 1kHz with 0.7% T.H.D) (U.S.A., Canada & Europe Models)
		120W	(6Ω/ohms, EIAJ) (Asia Model)
Surround :		70W + 70W	(8Ω/ohms, 20Hz~20kHz with 0.08% T.H.D)
		105W + 105W	(6Ω/ohms, 1kHz with 0.7% T.H.D) (U.S.A., Canada & Europe Models)
		120W + 120W	(6Ω/ohms, EIAJ) (Asia Model)
Output terminals:	Front :	A or B	6 to 16Ω/ohms
		A + B	12 to 16Ω/ohms
	Center/ Surround :		6 to 16Ω/ohms

#### Analog

##### LINE Input - PRE OUT

Input Sensitivity/Input impedance:	200mV/47kΩ/kohms
Frequency response:	10Hz~100kHz: +1, -3dB (TONE DEFEAT ON)
S/N ratio:	100dB (IHF-A weighted) (TONE DEFEAT ON)

#### Phono equalizer

##### PHONO Input - REC OUT

Input sensitivity/Input impedance:	2.5mV/47kΩ/kohms
RIAA deviation:	±1dB (20Hz~20kHz)
S/N ratio:	74dB (IHF-A weighted, with 5mV input)
Rated output/Maximum output:	150mV/7V
Distortion factor:	0.03% (1kHz, 3V)

### Video section

#### Standard video jacks

Input/output level and impedance:	1Vp-p, 75Ω/ohms
Frequency response:	5Hz~10MHz: +1, -3dB

#### S-video jacks

Input/output level and impedance:	Y (brightness) signal — 1Vp-p, 75Ω/ohms
	C (color) signal — 0.286Vp-p, 75Ω/ohms
Frequency response:	5Hz~10MHz: +1, -3dB

### Tuner section

Receiving range:	[FM] (note: μV at 75Ω/ohms, 0dBf = 1x10 <sup>-12</sup> W)	[AM]
U.S.A., Canada & Asia (for Multiple voltage) Models	87.50MHz~107.90MHz	520kHz~1710kHz
Europe & Asia (for China) Models	87.50MHz~108.00MHz	522kHz~1611kHz
Usable sensitivity:	1.0 μV (11.2dBf)	18 μV
50 dB quieting sensitivity:	MONO 1.6 μV (15.3dBf)	
	STEREO 23 μV (38.5dBf)	
S/N ratio:	MONO 80dB (IHF-A weighted)	
	STEREO 75dB (IHF-A weighted)	
Total harmonic distortion:	MONO 0.15% (1kHz)	
	STEREO 0.3% (1kHz)	

### General

#### Power supply:

U.S.A., Canada Models	AC120V, 60Hz
Europe Model	AC230V, 50Hz
Asia (for Multiple voltage) Model	AC115/230V, 50/60Hz
Asia (for China) Model	AC220V, 50Hz
Power consumption:	230W
Maximum external dimensions:	434 (W) × 171 (H) × 416 (D)mm (17-3/32" × 6-47/64" × 16-3/8")
Mass:	11.3kg (24 lbs 14.6 oz)

### Remote control unit (RC-874)

Batteries:	R6P/AA Type (two batteries)
External dimensions:	54 (W) × 172 (H) × 27.2 (D)mm (2-1/8" × 6-49/64" × 1-5/64")
Mass:	100g (Approx. 6 oz) (including batteries)

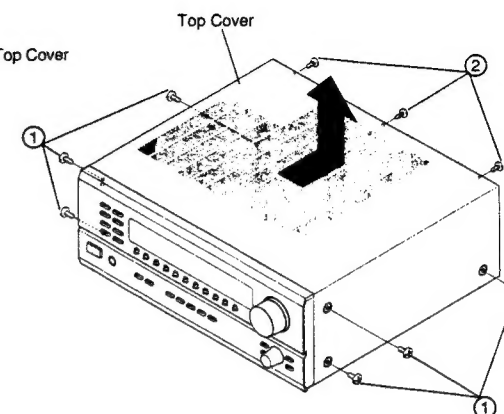
\* For purposes of improvement, specifications and design are subject to change without notice.

## DISASSEMBLY

(To reassemble reverse disassembly)

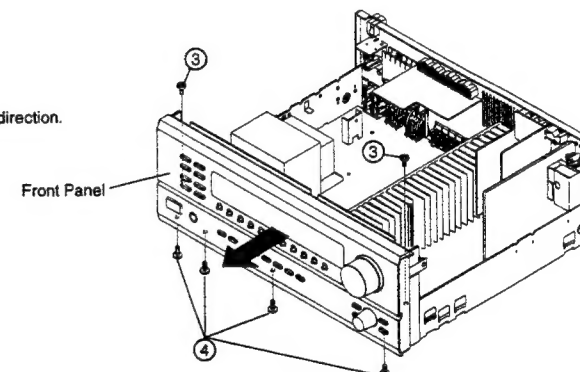
### Top Cover

Remove 6 screws ① and 3 screws ②, detach the Top Cover in the arrow direction.



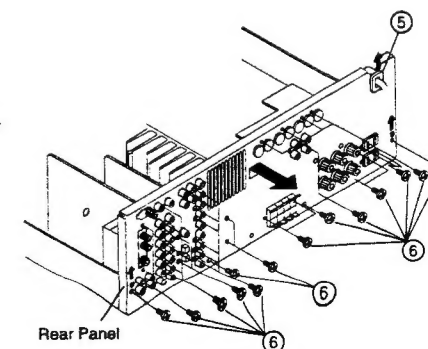
### Front Panel

1. Remove 2 screws ③.
2. Remove 4 screws ④.
3. Detach the Front Panel in the arrow direction.

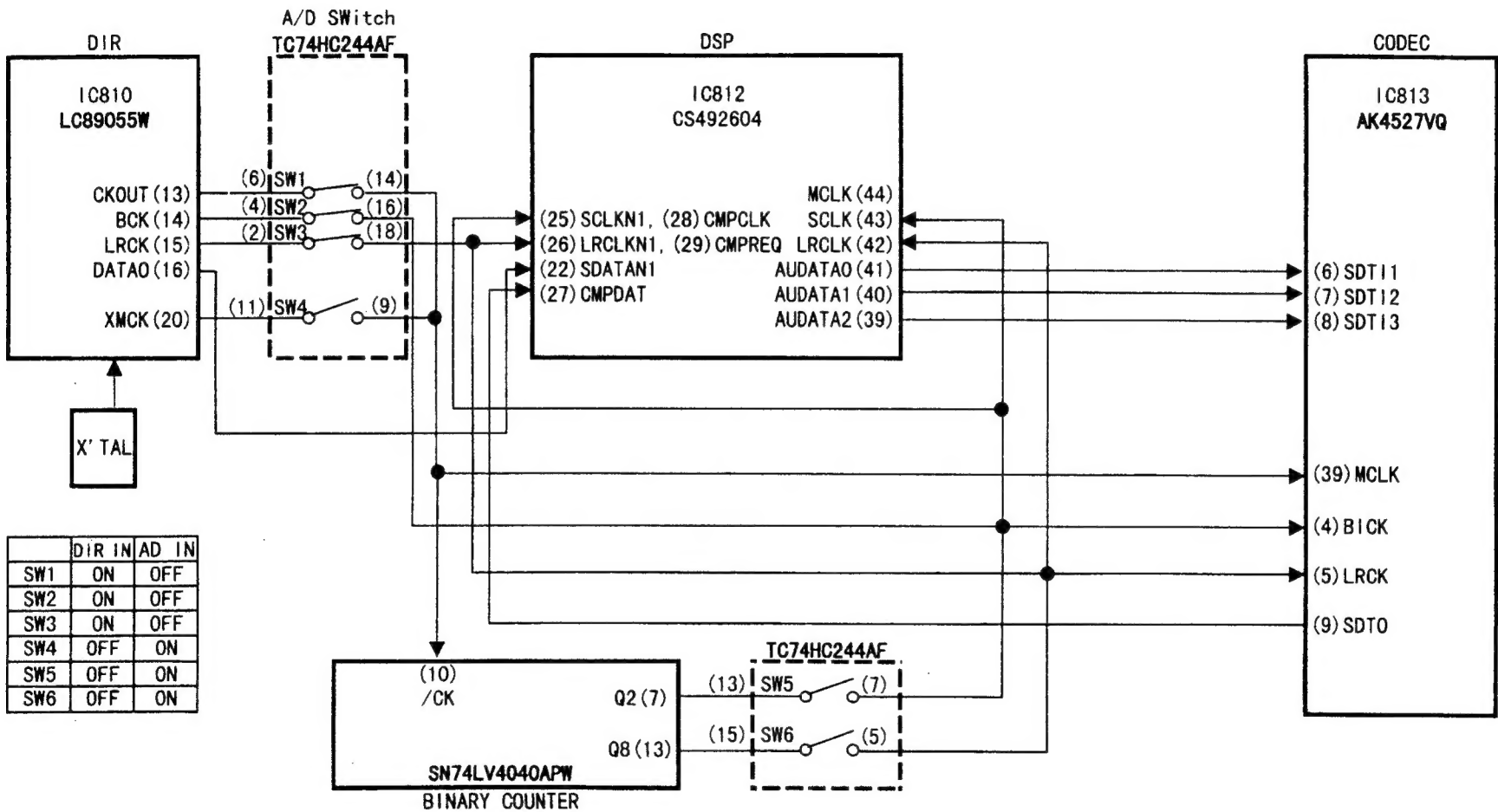


### Rear Panel

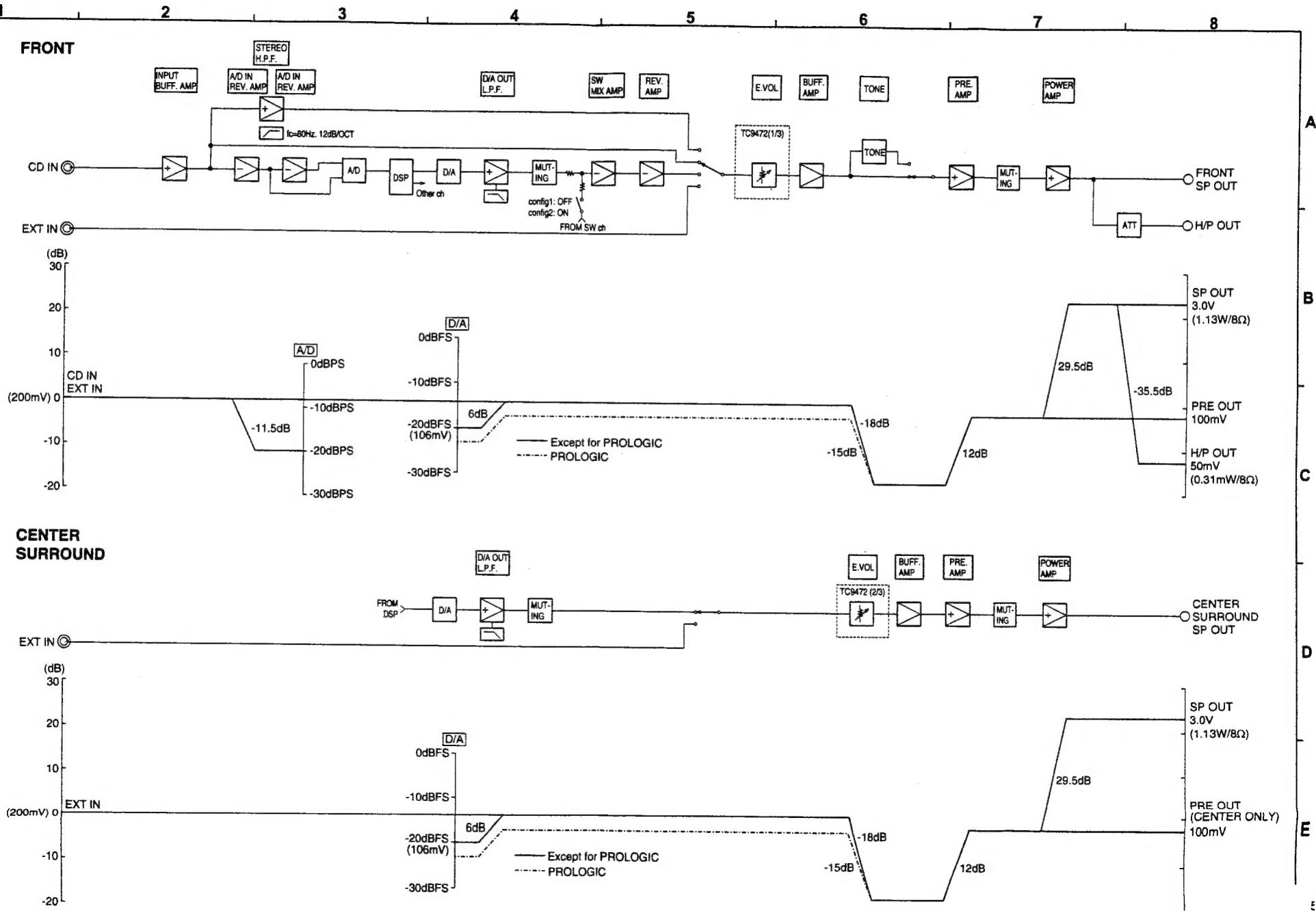
1. Remove cord bushing ⑤ from the Rear Panel.
2. Remove 35 screw ⑥.
3. While releasing 2 hooks, detach the Rear Panel in the arrow direction.

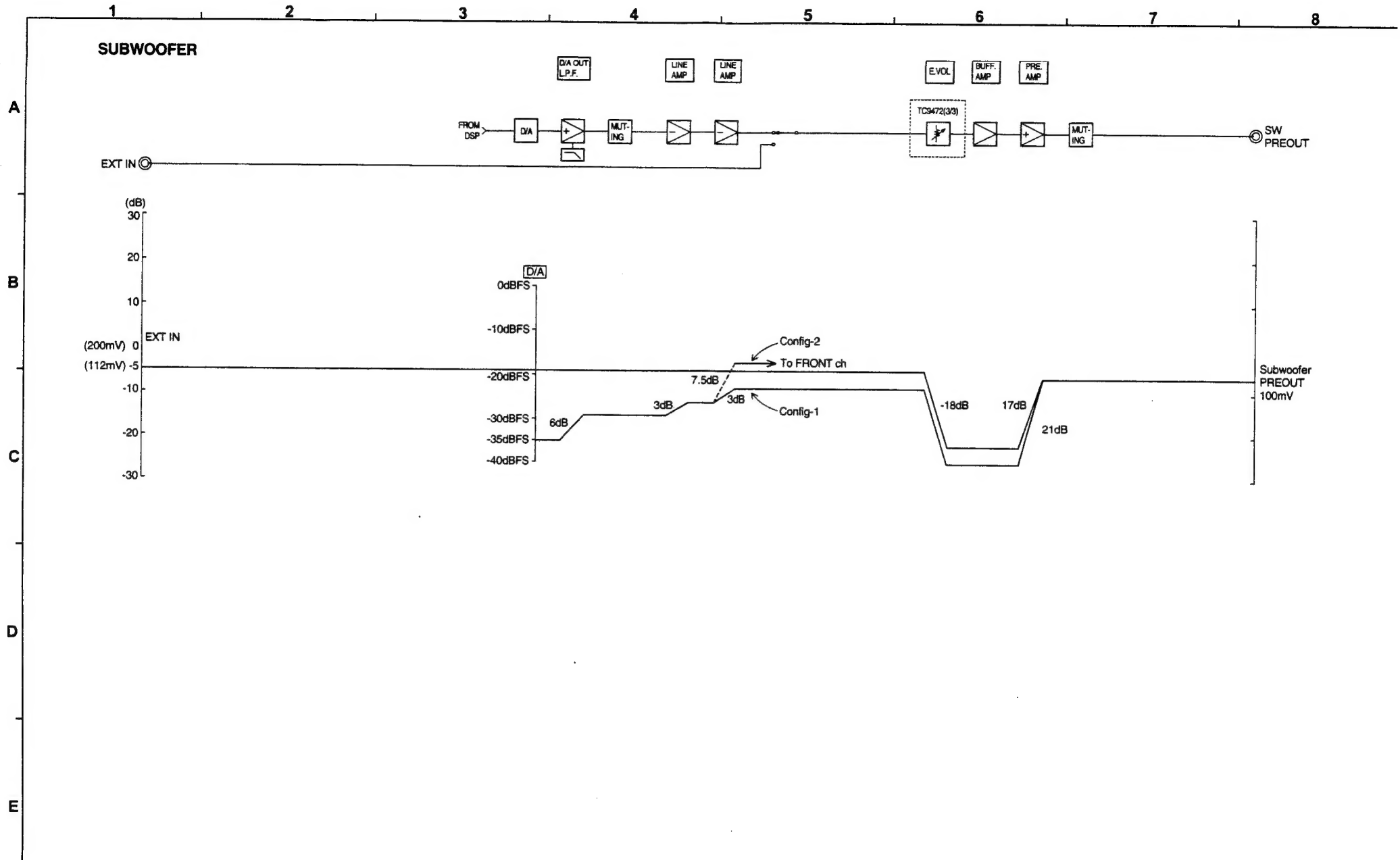


# CLOCK FLOW



## LEVEL DIAGRAM



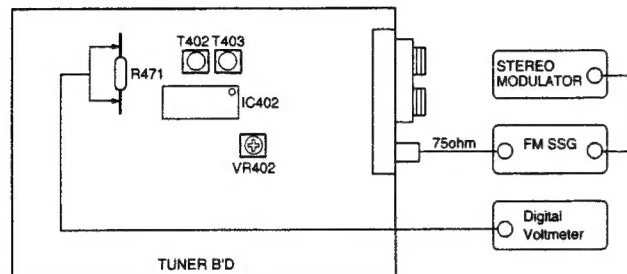


## ADJUSTMENT

### Tuner Section

#### CONNECTION DIAGRAM OF MEASURING INSTRUMENTS

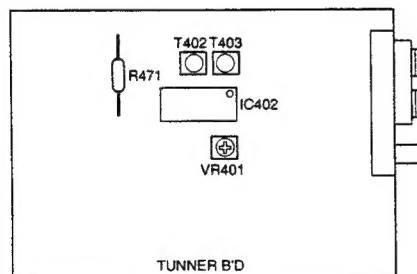
##### ● FM



#### FM ALIGNMENT

Step	Alignment Item	Tuning Frequency Setting	Input					Output		Adjustment	
			Type	Frequency	Input Level	Modulation	Coupling	Type	Connect to	Points	Adjust to
1	Center Adjustment	98.1MHz (98.0MHz)	FM SSG	98.1MHz	60dBμ	—	Antenna Terminal	Digital Voltmeter	R471	T402	± 50mV
2	Distortion	98.1MHz (98.0MHz)	FM SSG	98.1MHz	60dBμ	Mono 1kHz 100%	Antenna Terminal	Distortion Meter	Output Terminal (L)	T403	Minimum Distortion
3	Repeat Steps 1 and 2										
4	Signal Level	98.1MHz (98.0MHz)	FM SSG	98.1MHz	20dBμ	OFF	Antenna Terminal	Light "TUNED" on FL Display	VR402		20 <sup>+14</sup> <sub>-10</sub> dB

##### ● AM



#### AM ALIGNMENT

Step	Alignment Item	Frequency	Input	Output		Adjustment		Remarks
				Type	Connect to	Points	Adjust to	
1	Signal Level	999 (1000) kHz	AM SSG	—	—	VR401	Light "TUNED" on FL Display	SSG OUTPUT 74dBμ (EMF)

## Audio Section

### Idling Current

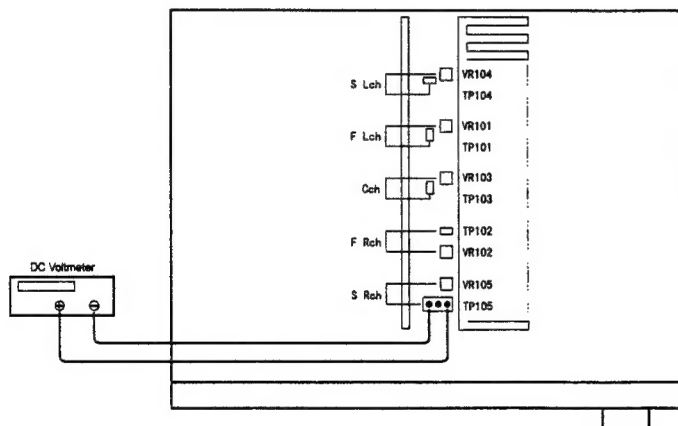
Required measurement equipment : DC Voltmeter

### Preparation

- (1) Avoid direct blow from an air conditioner or an electric fan, and adjust the unit at normal room temperature 15 °C ~ 30 °C (59 °F ~ 86 °F).
- (2) Presetting
  - POWER (Power source switch) → OFF
  - SPEAKER (Speaker terminal) → No load (Do not connect speaker, dummy resistor, etc.)

### Adjustment

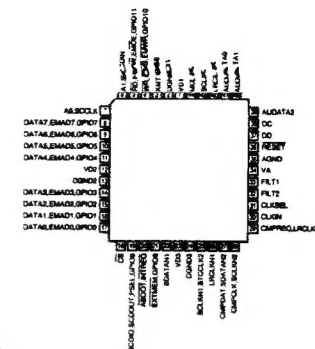
- (1) Remove top cover and set VR101, VR102, VR103, VR104, VR105 on Amp. Unit at full counterclockwise (  $\circlearrowleft$  ) position.
- (2) Connect DC Voltmeter to test points (FRONT-Lch: TP101, FRONT-Rch: TP102, CENTER ch: TP103, SURROUND-Lch: TP104, SURROUND-Rch: TP105).
- (3) Connect power cord to AC Line, and turn power switch "ON".
- (4) Presetting, MASTER VOLUME : "----" counterclockwise (  $\circlearrowleft$  min.)  
 MODE : 5CH STEREO  
 FUNCTION : CD
- (5) Within 2 minutes after the power on, turn VR101 clockwise (  $\circlearrowright$  ) to adjust the TEST POINT voltage to 1.5 mV  $\pm$  0.5 mV DC.
- (6) After 10 minutes from the preset above, turn VR101 to set the voltage to 2 mV  $\pm$  0.5 mV DC.
- (7) Adjust the Variable Resistors of other channels in the same way.



## SEMICONDUCTORS

### ICs

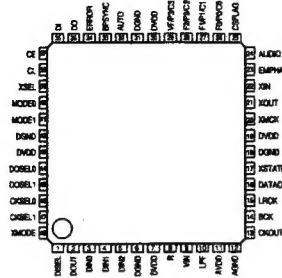
#### CS492604-CLR (IC812)



#### CS492604-CLR Terminal Function

Pin No.	Pin Name	Function
1	VD1	Digital positive supply
2	DGND1	Digital supply ground
3	XMT958	SPDIF transmitter output
4	WR_DS, EMWR, GPIO10	Host write strobe or host data strobe or external memory write enable or general purpose input & output number 10
5	RD_RW, EMOE, GPIO11	Host parallel output enable or host parallel R/W or external memory output enable or general purpose input & output number 11
6	A1, SCDIN	Host address bit one or SPI serial control data input
7	A0, SCCLK	Host parallel address bit zero or serial control port clock
8	DATA7, EMAD7, GPIO7	
9	DATA6, EMAD6, GPIO6	
10	DATA5, EMAD5, GPIO5	
11	DATA4, EMAD4, GPIO4	
12	VD2	Digital positive supply
13	DGND2	Digital supply ground
14	DATA3, EMAD3, GPIO3	
15	DATA2, EMAD2, GPIO2	
16	DATA1, EMAD1, GPIO1	
17	DATA0, EMAD0, GPIO0	
18	CS	Host parallel chip select, host serial SPI chip select
19	SCDIO, SCDOUT, PSEL, GPIO9	Serial control port data input and output, parallel port type select
20	INTREQ, ABOOT	Control port interrupt request, automatic boot enable
21	EXTMEM, GPIO8	External memory chip select or general purpose input & output number 8
22	SDATAN1	PCM audio data input number one
23	VD3	Digital positive supply
24	DGND3	Digital supply ground
25	SCLKN1, STCLK2	PCM audio input bit clock
26	LRCLKN1	PCM audio input sample rate clock
27	CMPDAT, SDATAN2	PCM audio data input number two
28	CMPCLK, SCLKN2	PCM audio input bit clock
29	CMPREQ, LRCLKN2	PCM audio input sample rate clock
30	CLKIN	Master clock input
31	CLKSEL	DSP clock select
32	FILT2	Phase locked loop filter
33	FILT1	Phase locked loop filter
34	VA	Analog positive supply
35	AGND	Analog supply ground
36	RESET	Master reset input
37	DD	Reserved
38	DC	Reserved
39	AUDATA2	Digital audio output 2
40	AUDATA1	Digital audio output 1
41	AUDATA0	Digital audio output 0
42	LRCLK	Audio output sample rate clock
43	SCLK	Audio output bit clock
44	MCLK	Audio master clock

## LC89055W (IC810)

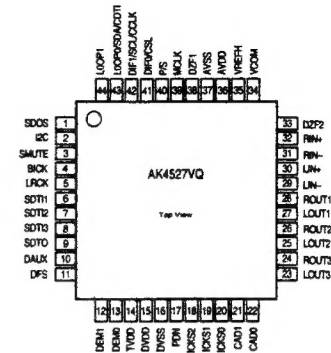


## LC89055W Terminal Function

Pin No.	Pin Name	I/O	Function
1	DISEL	I	Data input terminal (select input pin of DIN0, DIN1)
2	DOUT	O	Input bi-phase data through output terminal
3	DIN0	I	Amp built-in coaxial/optical input correspond data input terminal
4	DIN1	I	Amp built-in coaxial/optical input correspond data input terminal
5	DIN2	I	Optical input correspond data input terminal
6	DGND		Digital GND
7	DVDD		Digital power supply
8	R	I	VCO gain control input terminal
9	VIN	I	VCO free-run frequency setting input terminal
10	LPF	O	PLL loop filter setting terminal
11	AVDD		Analog power supply
12	AGND		Analog GND
13	CKOUT	O	Clock output terminal (256fs, 384fs, 512fs, X'tal osc., VCO free-run osc.)
14	BCK	O	64fs clock output terminal
15	LRCK	O	fs clock output terminal (L: Rch, H: Lch, I <sup>2</sup> S: Reverse)
16	DATAO	O	Data output terminal
17	XSTATE	O	Input data detecting result output terminal
18	DGND		Digital GND
19	DVDD		Digital power supply
20	XMCK	O	X'tal osc. clock output terminal (24.576MHz or 12.288MHz)
21	XOUT	O	X'tal osc. connection output terminal
22	XIN	I	X'tal osc. connection input terminal, external signal input possible (24.576MHz or 12.288MHz)
23	EMPHA	O	Emphasis information output terminal of channel status
24	AUDIO	O	Bit1 output terminal of channel status
25	CSFLAG	O	Top 40bit revise flag output terminal of channel status
26	F0/P0/C0	O	Input fs cal. sig. out/data type out/input word inf. output terminal
27	F1/P1/C1	O	Input fs cal. sig. out/data type out/input word inf. output terminal
28	F2/P2/C2	O	Input fs cal. sig. out/data type out/input word inf. output terminal
29	VF/P3/C3	O	Validity flag out/data type out/input word inf. output terminal
30	DVDD		Digital power supply
31	DGND		Digital GND
32	AUTO	O	Non PCM burst data transfer detect sig. output terminal
33	BPSYNC	O	Non PCM burst data preamble Pa, Pb, Pc, Pd sync sig. output terminal
34	ERROR	O	PLL lock error, data error flag output terminal
35	DO	O	CPU/IFD read data output terminal
36	DI	I	CPU I/F write data input terminal
37	CE	I	CPU I/F chip enable input terminal
38	CL	I	CPU I/F chip enable input terminal
39	XSEL	I	Frequency select input pin of XIN X'tal osc. (24.576MHz or 12.288MHz)
40	MODE0	I	Mode setting input terminal
41	MODE1	I	Mode setting input terminal
42	DGND		Digital GND
43	DVDD		Digital power supply
44	DOSEL0	I	Data output format select input terminal
45	DOSEL1	I	Data output format select input terminal
46	CKSEL0	I	Output clock select input terminal
47	CKSEL1	I	Output clock select input terminal
48	XMODE	I	Reset input terminal

\* For latch-up countermeasure, set digital (DVDD) and analog (AVDD) power on/off in the same timing.

## AK4527VQ (IC813)

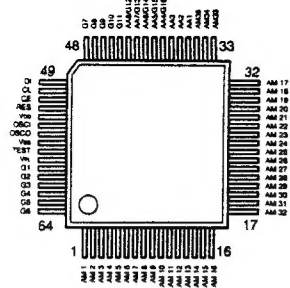


## AK4527VQ Terminal Function

Pin No.	Pin Name	I/O	Function
1	SDOS	I	SDTO source select pin, L: Internal ADC output, H: DAUX input
2	I2C	I	Serial control mode select pin, L: 3-core serial, H: I <sup>2</sup> C bus
3	SMUTE	I	Soft mute pin, H: Soft mute start, L: Release
4	BICK	I	Audio serial data clock pin
5	LRCK	I	Input channel clock pin
6	SDTI1	I	DAC1 audio serial data input pin
7	SDTI2	I	DAC2 audio serial data input pin
8	SDTI3	I	DAC3 audio serial data input pin
9	SDTO	O	Audio serial data output pin
10	DAUX	I	Auxiliary audio serial data input pin
11	DFS	I	Double speed sampling mode pin, L: Normal, H: Double
12	DEM1	I	De-emphasis-1 pin
13	DEM0	I	De-emphasis-2 pin
14	TVDD	—	Power pin for output buffer, 2.7V–5.5V
15	DVDD	—	Digital power pin, 4.5V–5.5V
16	DVss	—	Digital GND pin, 0V
17	PDN	I	Power down & reset pin, L: Powered-down and register initialized, Reset with PDN when switching CAD0-1
18	ICKS2	I	Input clock select-2 pin
19	ICKS1	I	Input clock select-1 pin
20	ICKS0	I	Input clock select-0 pin
21	CAD1	I	Chip address-1 pin
22	CAD0	I	Chip address-0 pin
23	LOUT3	O	DAC3L channel analog out pin
24	ROUT3	O	DAC3R channel analog out pin
25	LOUT2	O	DAC2L channel analog out pin
26	ROUT2	O	DAC2R channel analog out pin
27	LOUT1	O	DAC1L channel analog out pin
28	ROUT1	O	DAC1R channel analog out pin
29	LIN-	I	L-ch analog inverted input pin
30	LIN+	I	L-ch analog non-inverted input pin
31	RIN-	I	R-ch analog inverted input pin
32	RIN+	I	R-ch analog non-inverted input pin
33	DZF2	O	0 input detect 2 pin, H: Input data of G2 is 8192 times "0" in a raw or RSTN bit "0". L: When P/S = "0"
34	VCOM	O	Common V-out pin, AVDD/2, connect large capacitor to avoid noise
35	VREFH	I	Ref. V input pin, AVDD
36	AVDD	—	Analog GND pin, 4.5V–5.5V
37	AVss	—	Analog GND pin, 0V
38	DZF1	O	0 input detect pin, H: Input data of G1 is 8192 times "0" in a raw or RSTN bit "0". L: When P/S = "0"
39	MCLK	I	Master clock input pin
40	P/S	I	Parallel/Serail select pin, L: Serial control
41	DIF0	I	Audio data I/F format 0 pin (parallel control)
42	CSN	I	Chip select pin (3-wire serial control), connect to DVDD when I <sup>2</sup> C bus control
43	DIF1	I	Audio data I/F format 1 pin (parallel control)
44	SCL/CCLK	I	Control data clock pin (serial control), I <sup>2</sup> C="L": CCLK (3-wire serial), I <sup>2</sup> C="H": SCL (I <sup>2</sup> C bus)
45	LOOP0	I	Loop back mode 0 pin (parallel control), effects digital loop back ADC to all DAC
46	SDA/CDT1	I/O	Control data input pin (serial control), I <sup>2</sup> C="L": CDT1 (3-wire serial), I2C="H" SDA (I <sup>2</sup> C bus)
47	LOOP1	I	Loop back mode 1 pin, from SDT1 to all DAC



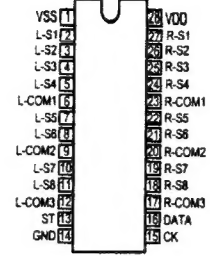
LC75721E (C301)



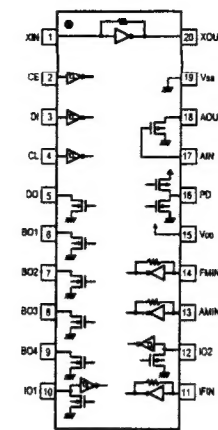
● LC75721E Terminal Function

Symbol	Function
V <sub>DD</sub>	Power terminal +5V
V <sub>SS</sub>	Power terminal GND
V <sub>FL</sub>	Power terminal FL drive
DI	Serial data transfer terminal
CL	DI: Data
CE	CL: Clock
CE	CE: Chip enable
OSCI	External CR connecting terminal
OSCO	External CR connecting terminal
RES	System reset terminal
AM1-AM35	Anode output terminal
AA1-AA3	Anode/Grid output terminal
AA4/G16	Anode/Grid output terminal
AA5/G15	Anode/Grid output terminal
AA6/G14	Anode/Grid output terminal
AA7/G13	Anode/Grid output terminal
AA8/G12	Anode/Grid output terminal
G1-G11	Grid output terminal
TEST	LSI test terminal

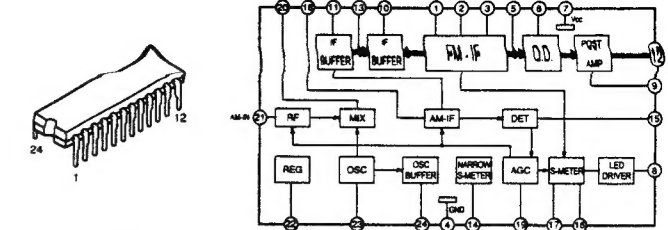
KIC9164AN(IC203)



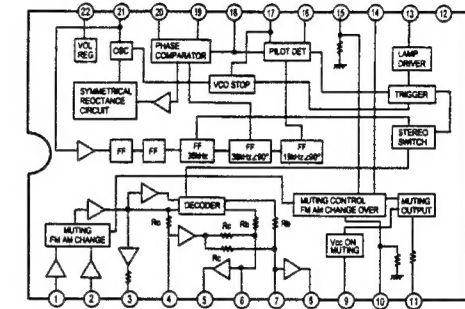
LC72131M (IC401)



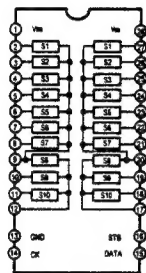
LA1266 (IC402)



LA3401 (IC403)



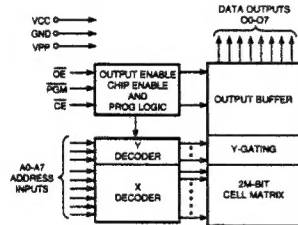
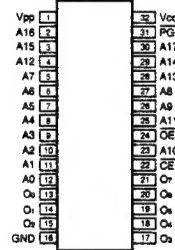
TC9273N-007(IC701)



● TC9273N Terminal Function

Pin No	Symbol	Name	Function
1	V <sub>DD</sub>	+Power Terminal	Dual Power Use: V <sub>DD</sub> = 8.0-17 V Single Power Use: V <sub>DD</sub> = 8.0-18 V
13	GND	Digital Ground	GND=0V
28	V <sub>DD</sub>	+Power Terminal	V <sub>DD</sub> =8.0-17V
2-12	S1-S10	I/O Terminal	Input terminal of analog switch.
14	CK	Clock Input	Clock input for data transfer.
15	DATA	Data Input	Serial input for switch setting.
16	STB	Strobe Input	Strobe input for data writing.

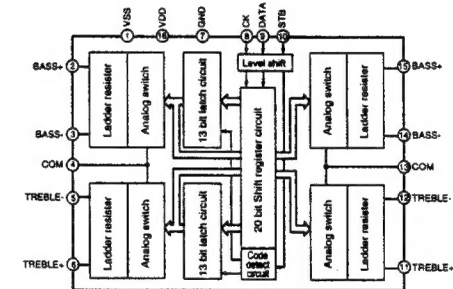
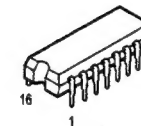
W27C020(IC807)



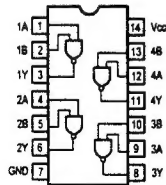
NJM2068DD

(IC205-210, 551, 702-704, 814-816)  
BA4510F(IC805, 806)

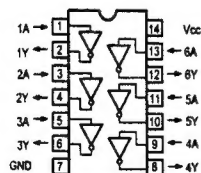
TC9184AP (IC552)



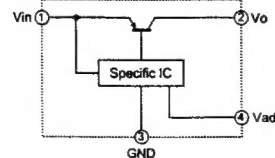
SN74LV00APW(IC822)



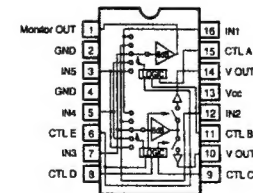
MC74HCU04AD(IC803)



KIA78R05PI (IC653)



BA7625 (IC601, 651, 652)



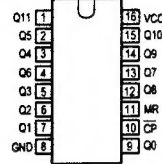
A	B	E	MONITOR OUT
L	L	*	IN 1
H	L	*	IN 2
L	H	*	IN 3
H	H	L	IN 4
H	H	H	IN 5

C	D	E	VOUT 1
L	L	*	IN 1
H	L	*	IN 2
L	H	*	IN 3
H	H	L	IN 4
H	H	H	IN 5

C	D	E	VOUT 2
L	L	*	IN 1
H	L	*	IN 2
L	H	*	IN 3
H	H	L	IN 4
H	H	H	IN 5

Note 1: \* mark means that feasible for either H or L.  
Note 2: Each input terminal is provided with sink clip clamp (BA7625).  
Each input terminal takes 20kohm at the end (BA7626).

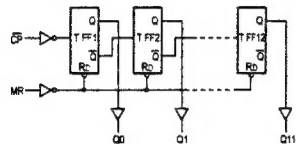
SN74LV4040 (IC831)



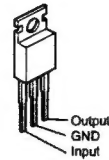
Terminal Function

INPUTS		OUTPUTS
CP	MR	Qn
↑	L	no change
↓	L	count
X	H	L

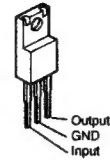
H=HIGH voltage level  
L=LOW voltage level  
X=don't care  
↑=LOW-to-HIGH clock transition  
↓=HIGH-to-LOW clock transition



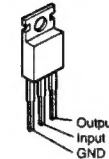
KIA7805 (IC104)  
KA7815 (IC101)



NJM7805FA (S)  
(IC103, 829)



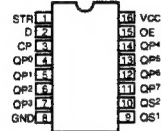
KIA7915 (IC102)



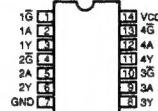
BA033FP (IC811)



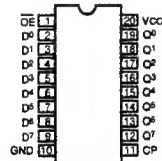
PC74HC4094 (IC302, 602)



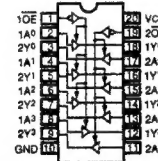
TC74HC125D (IC821)



PC74HCT574 (IC808,809)

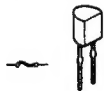


DC74HCT244 (IC828,830)



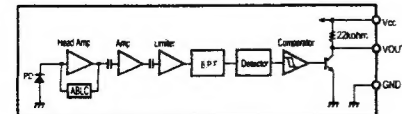
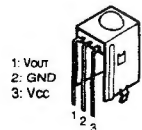
● IC PROTECTOR

ICP-N15 (IC105)



● IR SENSOR

NJL64H380A(RMC301)



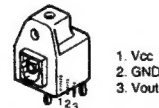
● POSISTOR

P43T7D330BW16



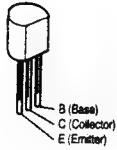
● OPTICAL OUT

GP1F37R1 (IC801, 802)

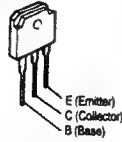


## TRANSISTOR

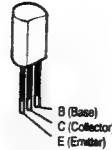
KSC1845 (F)  
KTA1266 (Y)  
KTA1268 (BL)  
KTC2874 (B)  
KTC3198 (Y)  
KTC3200 (BL)  
KSA992 (F)



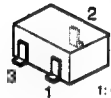
2SB1560  
2SD2390



KSA916(Y)



2SC2412K (S)  
KTC3880 (S)

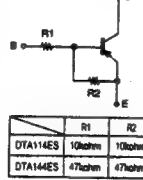


1: GND/(Emitter)  
2: Output/(Collector)  
3: Input/(Base)

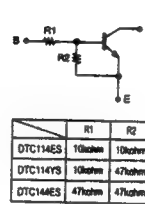
DTA114ES (PNP)  
DTA144ES (PNP)  
DTC114ES (NPN)  
DTC144ES (NPN)  
DTC114YS (NPN)



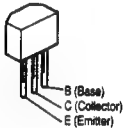
PNP Type



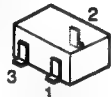
NPN Type



2SC1740S

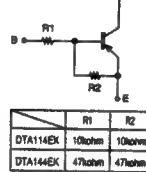


DTA114EK  
DTA144EK  
DTC114EK  
DTC114YK  
DTC144EK

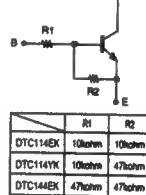


1: GND/(Emitter)  
2: Output/(Collector)  
3: Input/(Base)

PNP Type

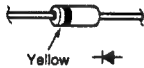


NPN Type

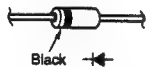


## DIODES (LED Included)

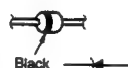
1SS133



1N4004A



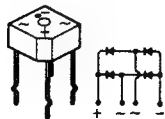
MTZJ5.6B  
MTZJ6.2B  
MTZJ18B  
MTZJ20B  
MTZJ3.3B  
MTZJ7.5B  
MTZJ5.1B  
MTZJ6.8B  
MTZJ11B



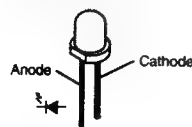
KDS160



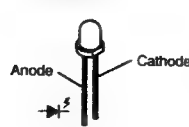
KBPC604



HL50RDRF4T  
(LED301~307)

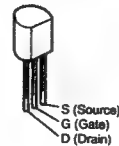


HL-30RDRF3  
(LED308,309)



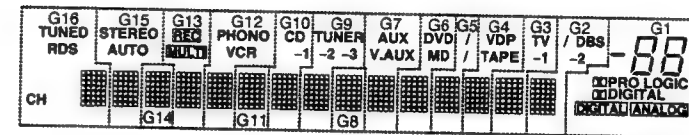
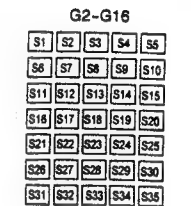
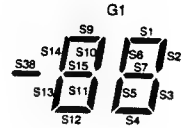
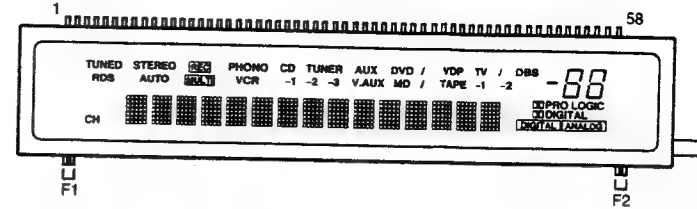
## FET

2SK117(Y)



## FL DISPLAY

16-st-42GNK (FL301)



## Pin Assignment

PIN NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
CONNECTION	F1	F1	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12	S13	S14	S15	S16	S17	S18
PIN NO.	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
CONNECTION	S19	S20	S21	S22	S23	S24	S25	S26	S27	S28	S29	S30	S31	S32	S33	S34	S35	S36	S37	S38
PIN NO.	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58		
CONNECTION	G16	G15	G14	G13	G12	G11	G10	G9	G8	G7	G6	G5	G4	G3	G2	G1	F2	F2		

F1, F2 : Filament  
G1-G16 : Grid  
S1-S38 : Anode

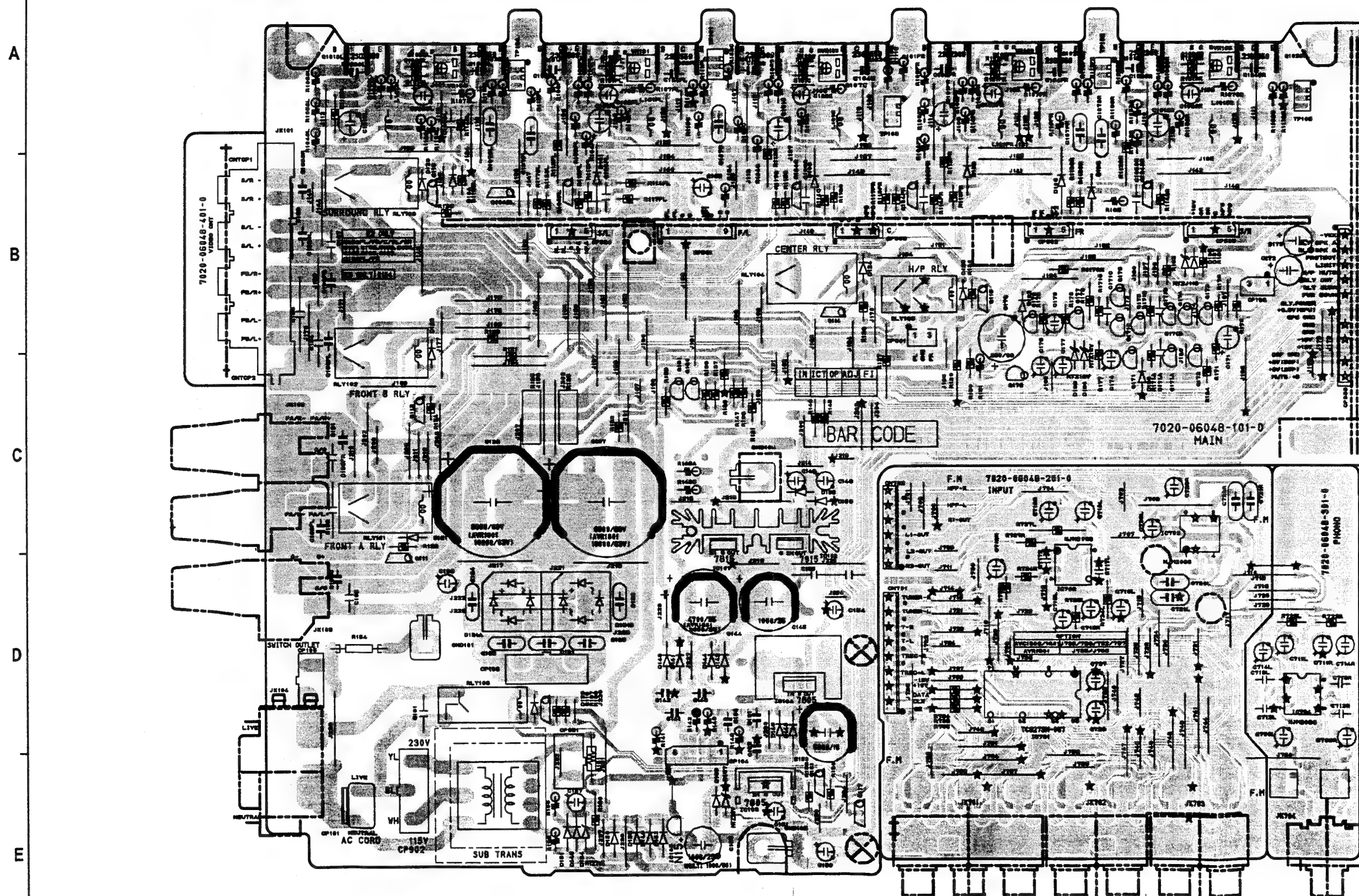
## Anode & Grid Assignment

	G1	G2-G16		G1	G2-G16		G1	G2-G16		G1	G2-G16		G1	G2-G16
S1	S1	S1	S10	S10	S10	S19	---	S19	S28	---	S28			
S2	S2	S2	S11	S11	S11	S20	---	S20	S29	---	S29			
S3	S3	S3	S12	S12	S12	S21	---	S21	S30	---	S30			
S4	S4	S4	S13	S13	S13	S22	---	S22	S31	---	S31			
S5	S5	S5	S14	S14	S14	S23	---	S23	S32	---	S32			
S6	S6	S6	S15	S15	S15	S24	---	S24	S33	---	S33			
S7	S7	S7	S16	---	S16	S25	---	S25	S34	---	S34			
S8	---	S8	S17	PRO LOGIC S17	S17	S26	---	S26	S35	---	S35			
S9	S9	S9	S18	PRO LOGIC S18	S18	S27	---	S27						

	G1	G2	G3	G4	G5	G6	G7	G8	G9	G10	G11	G12	G13	G14	G15	G16
S36	ORIGINAL	/	TV	VDP	(DVD)	DVD	AUX	---	TUNER	CD	---	PHONO	REC	---	STEREO	TUNED
S37	ANALOG	-2	TAPE	(MD)	MD	V.MAX	---	---	-2	-1	---	VCR	MULTI	---	AUTO	RDS
S38	S38	DBS	---	---	---	---	---	-3	---	---	---	---	---	---	---	CH

## PRINTED WIRING BOARDS

**MAIN P.W.B. ASS'Y**



**COMPONENT SIDE**



1

2

3

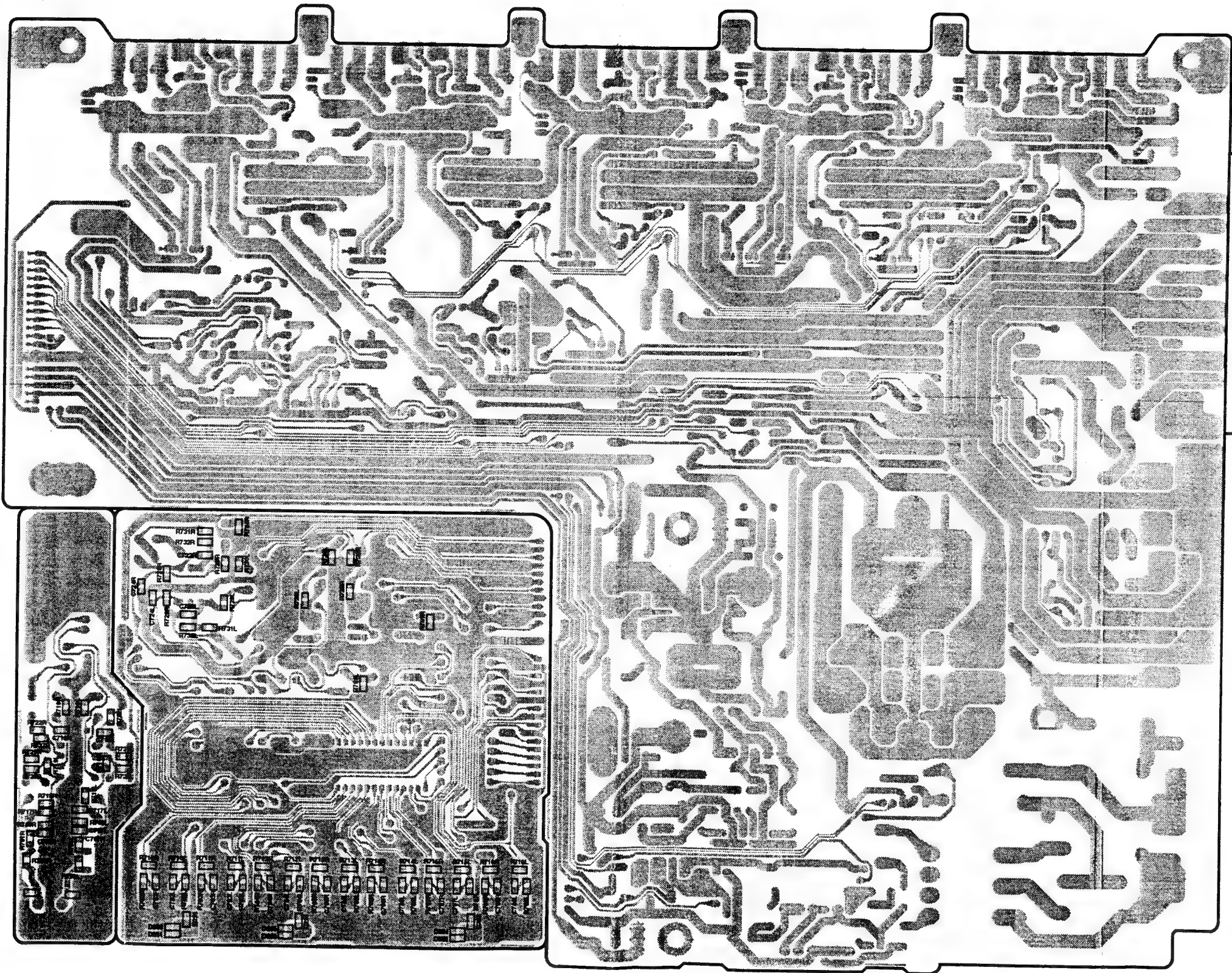
4

5

6

7

8



FOIL SIDE

A

B

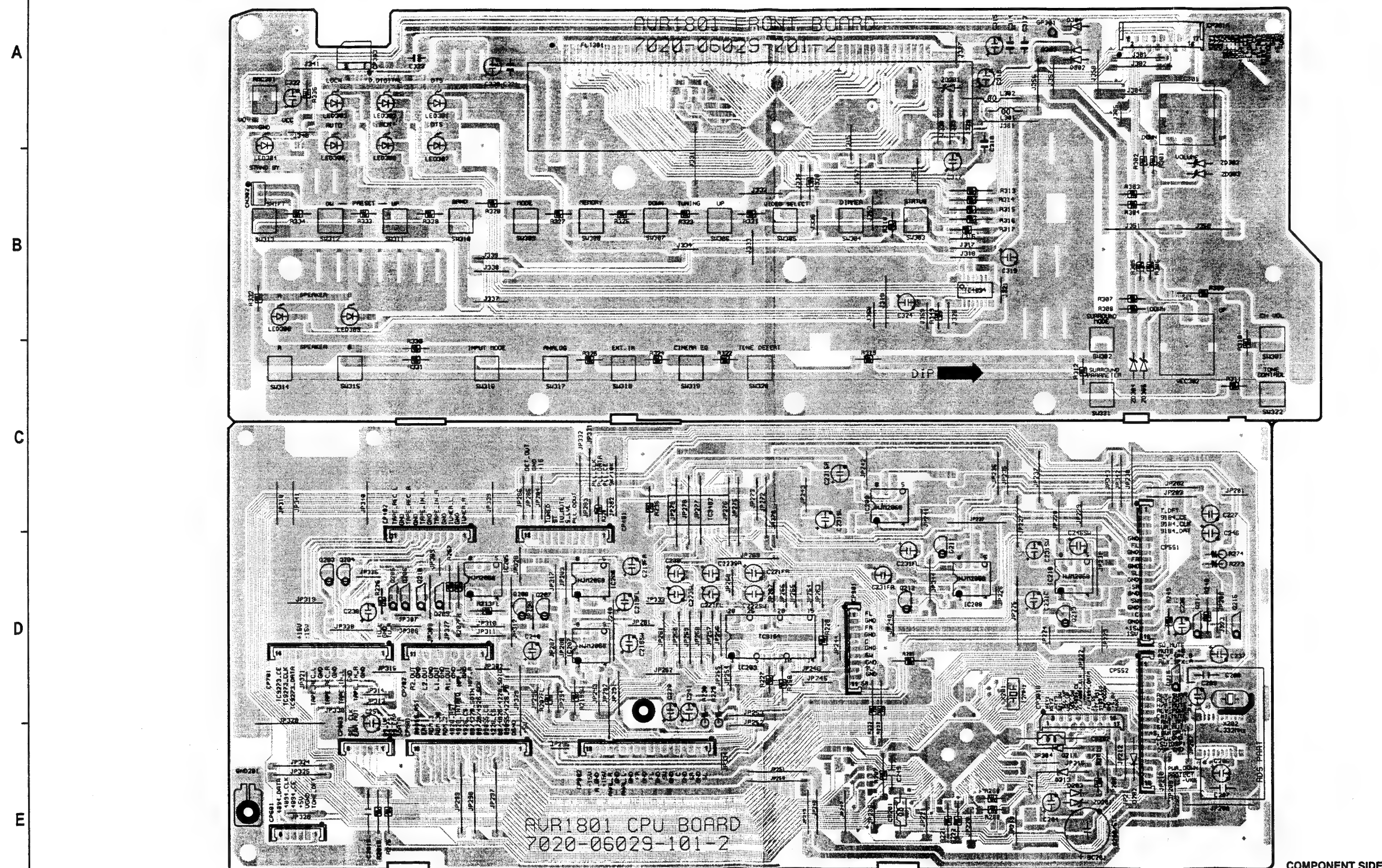
C

D

E



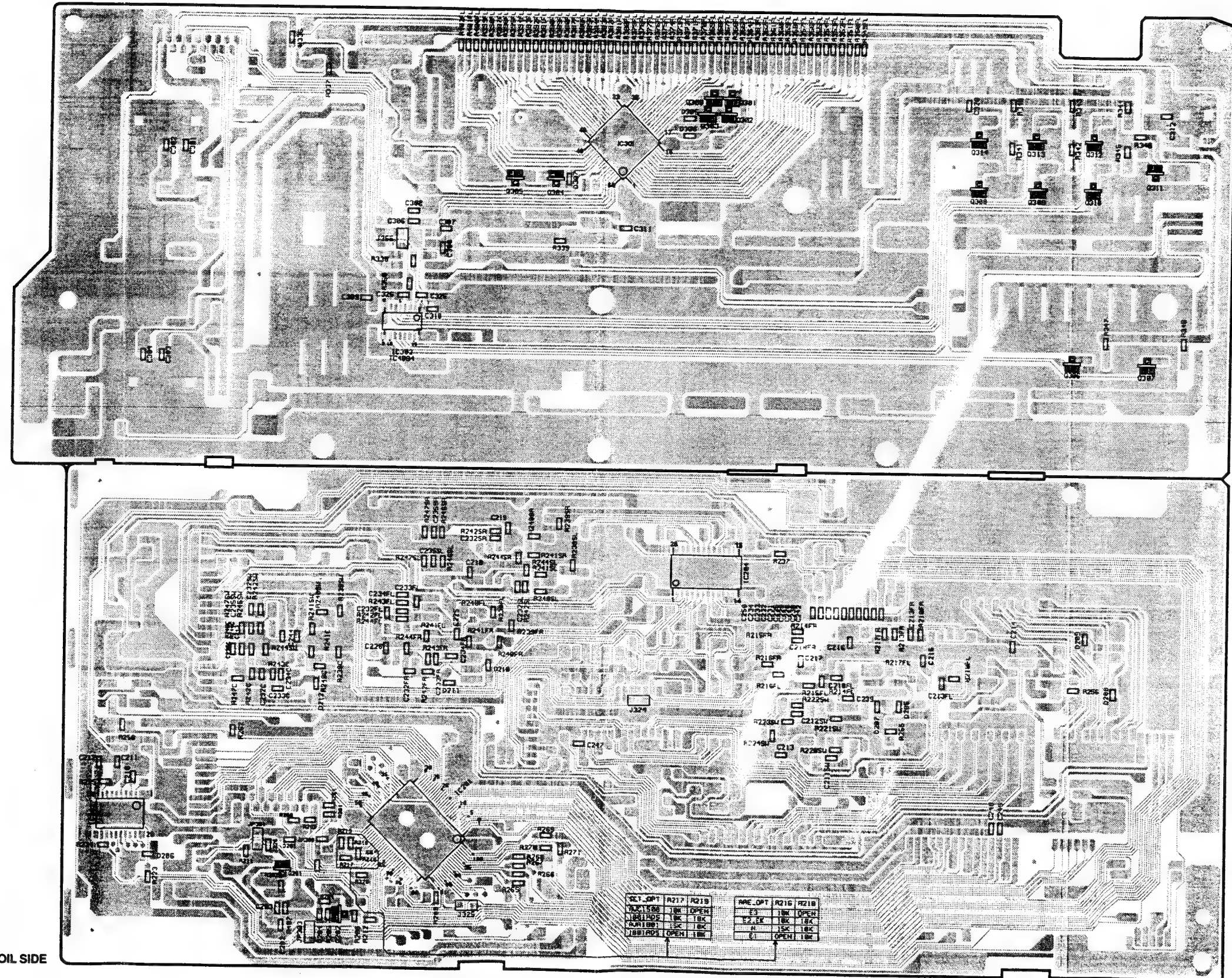
**PROCESSOR P.W.B. ASS'Y**



### COMPONENT SIDE



1 2 3 4 5 6 7 8



FOIL SIDE

A

B

C

D

E



CNT P.W.B. ASS'Y

A

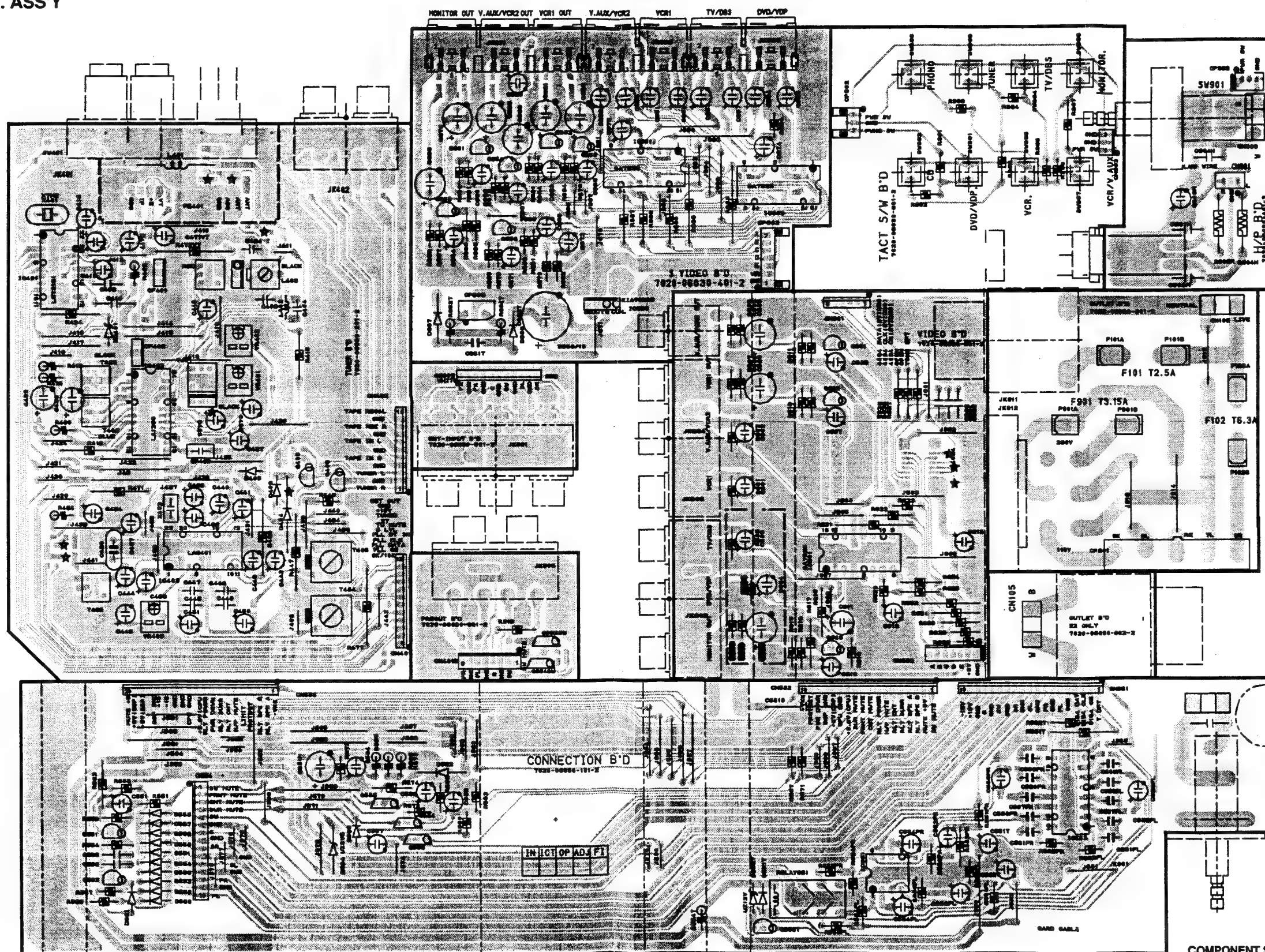
B

C

D

E

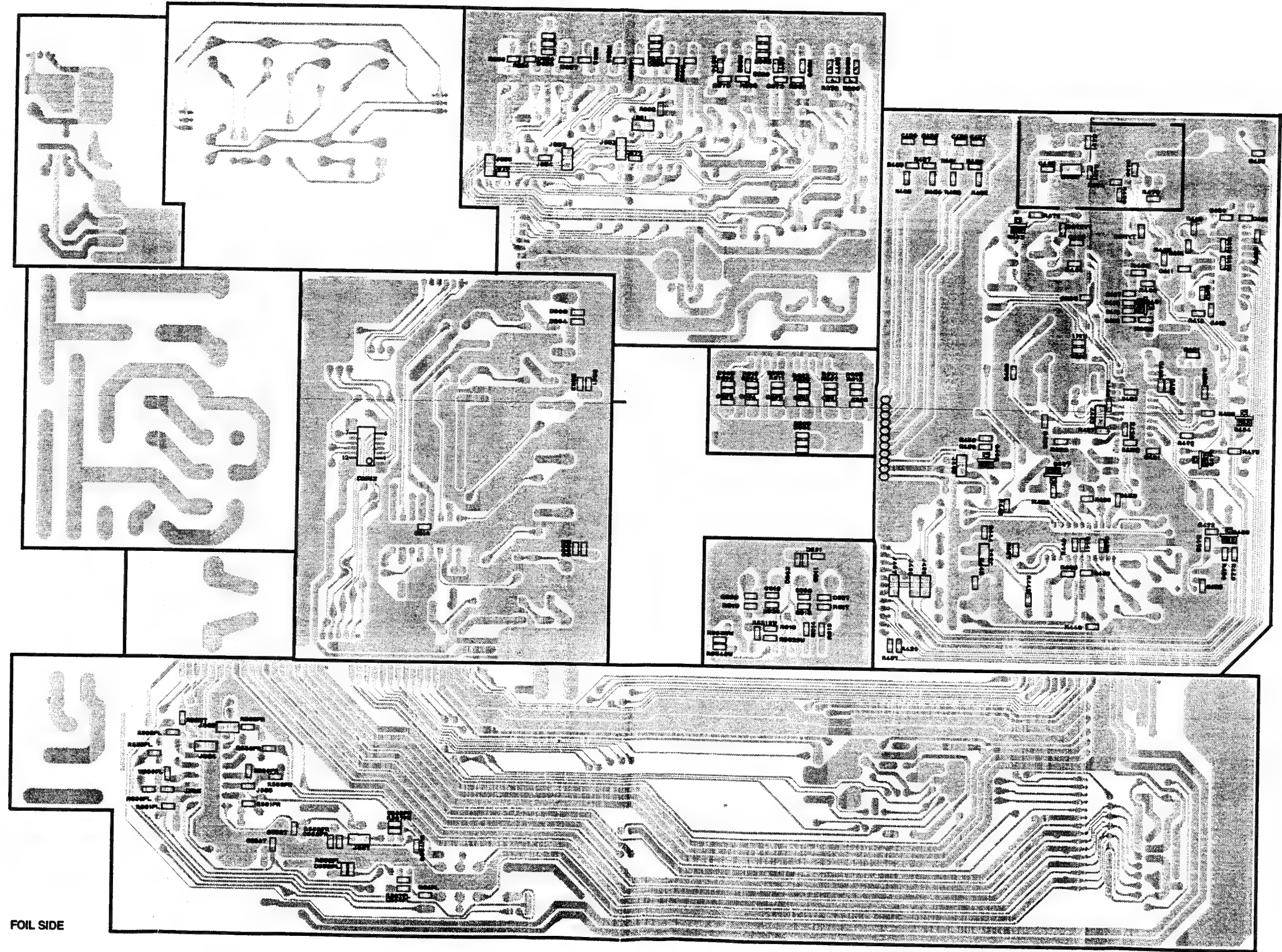
1 2 3 4 5 6 7 8



COMPONENT SIDE



1 2 3 4 5 6 7 8



A

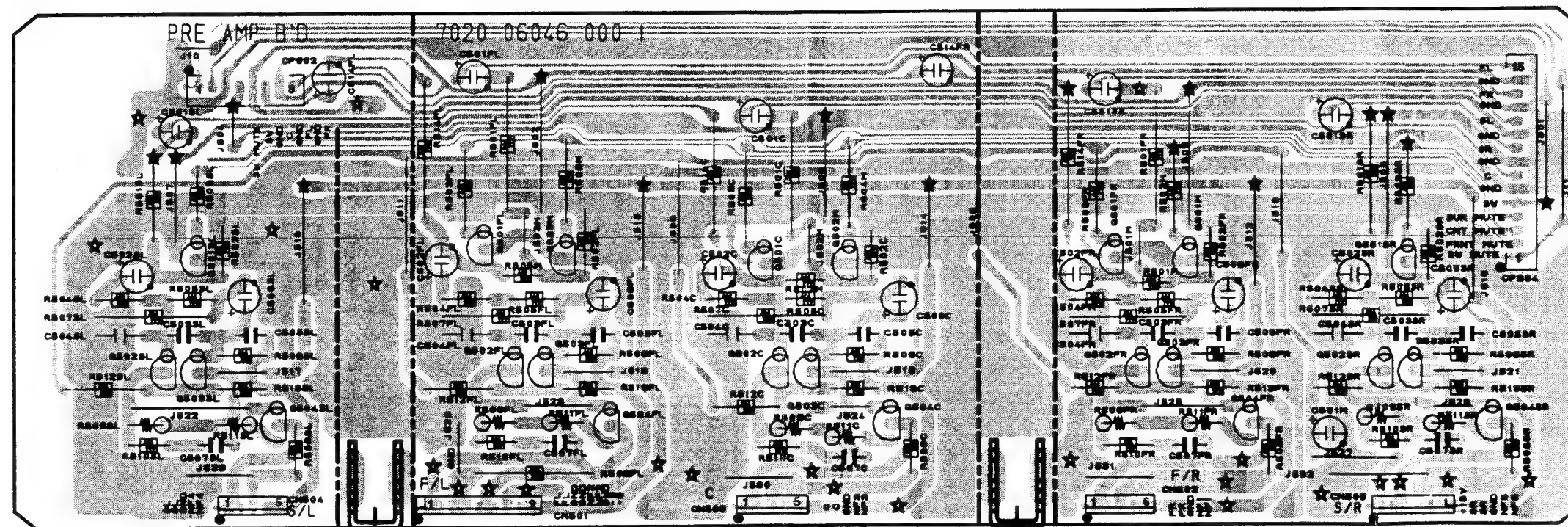
B

C

D

E

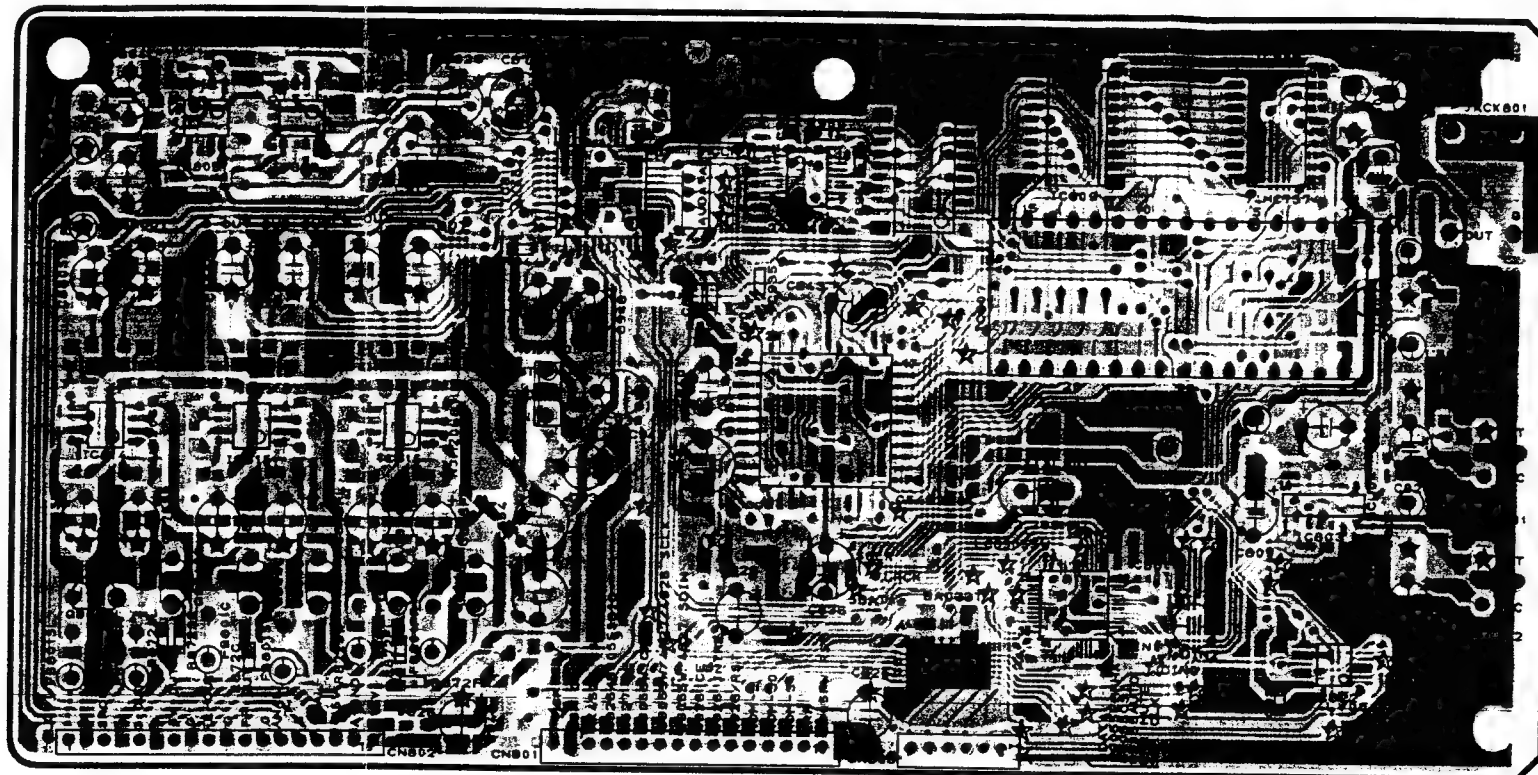
PRE-AMP P.W.B. ASS'Y



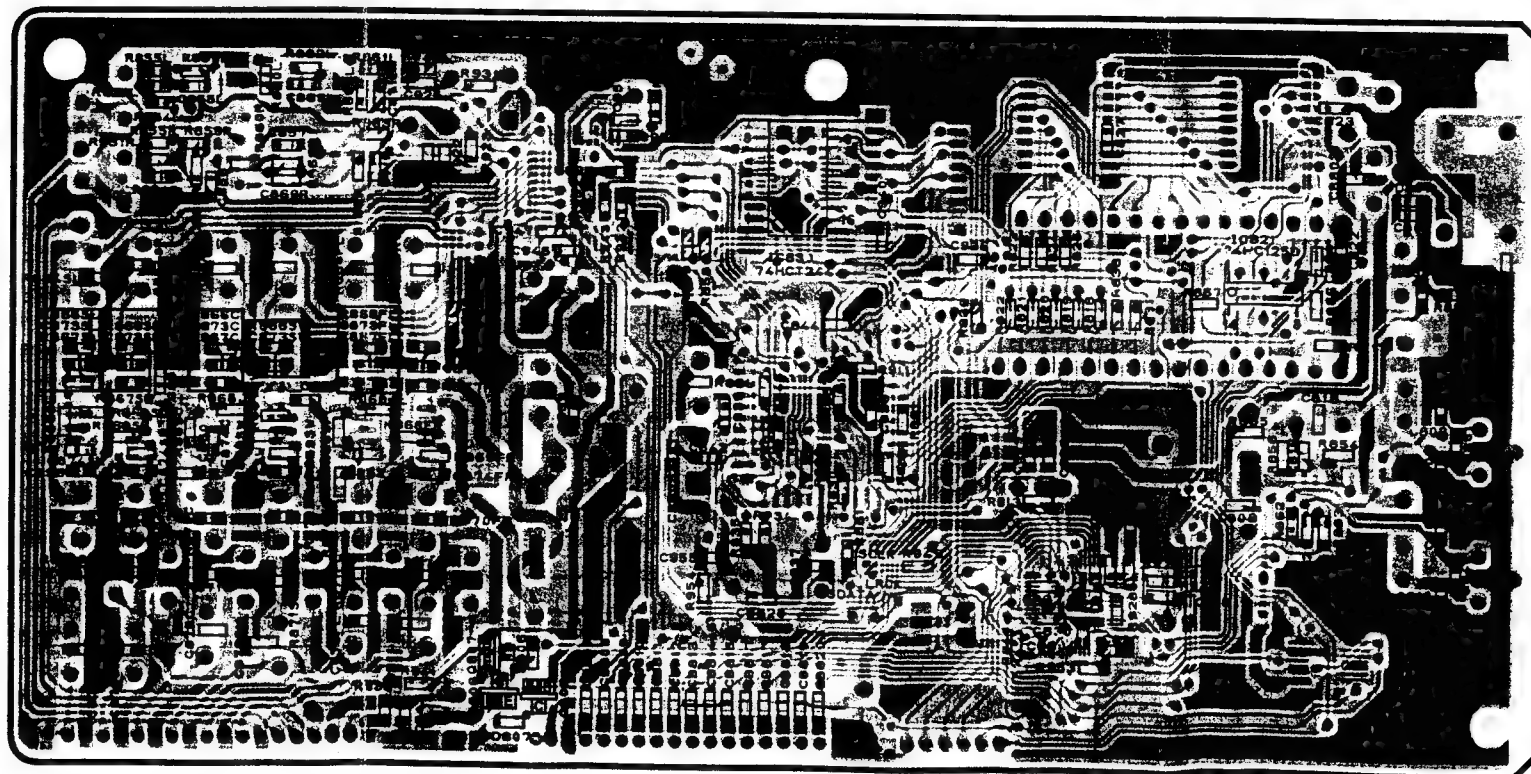
COMPONENT SIDE



DSP P.W.B. ASS'Y

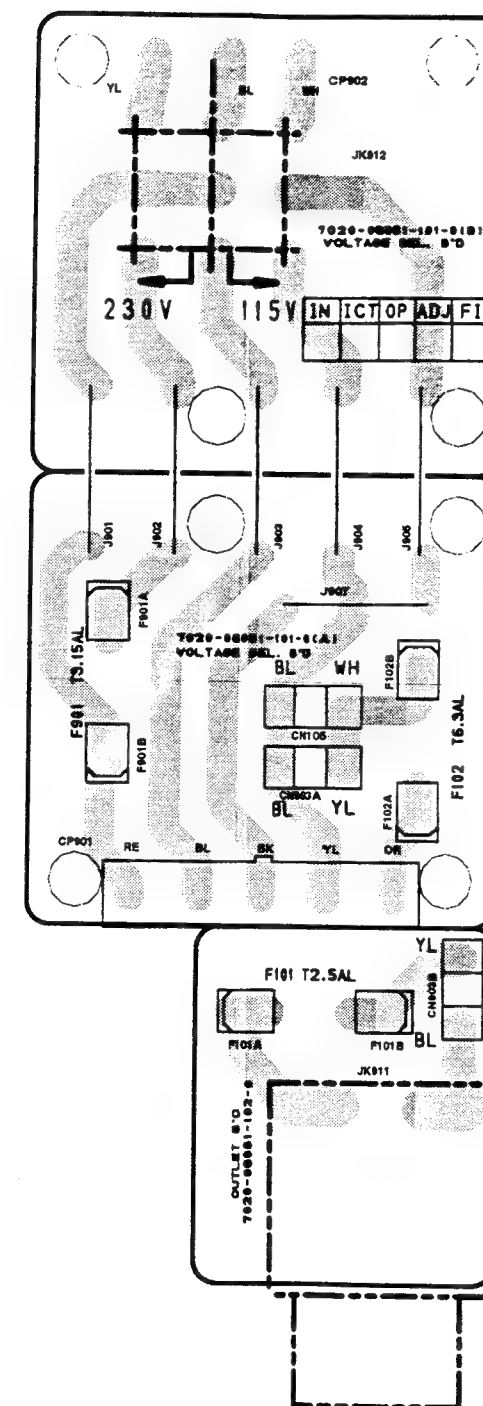


COMPONENT SIDE



FOIL SIDE

VOLTAGE SEL. P.W.B. ASS'Y



COMPONENT SIDE

A

B

C

D

E

## NOTE FOR PARTS LIST

- Part indicated with the mark "⊕" are not always in stock and possibly to take a long period of time for supplying, or in some case supplying of part may be refused.
- When ordering of part, clearly indicate "I" and "II" to avoid mis-supplying.
- Ordering part without stating its part number can not be supplied.
- Part indicated with the mark "\*" is not illustrated in the exploded view.
- Not including Carbon Film  $\pm 5\%$ , 1/4W Type in the P.W.Board parts list. (Refer to the Schematic Diagram for those parts.)

## WARNING:

Parts marked with this symbol  $\Delta$  have critical characteristics.  
Use ONLY replacement parts recommended by the manufacturer.

## ● Resistors

Ex: RN 14K 2E 182 G ER  
Type Shape Power Resistance Allowable Others

RD : Carbon	2B : 1/8W	F : $\pm 1\%$	P : Pulse-resistant type
RC : Composition	2E : 1/4W	G : $\pm 2\%$	NL : Low noise type
RS : Metal oxide film	2H : 1/2W	J : $\pm 5\%$	NS : Non-burning type
RW : Winding	3A : 1W	K : $\pm 10\%$	FR : Fuse-resistor
RN : Metal film	3D : 2W	M : $\pm 20\%$	F : Lead wire forming
RK : Metal mixture	3F : 3W		
	3H : 5W		

## ● Resistance

1 2 3  $\Rightarrow$  1800 ohm = 1.8 kohm  
Indicates number of zeros after effective number.  
2-digit effective number.

Units: ohm

1 B 2 3  $\Rightarrow$  1.2 ohm  
1-digit effective number.  
2-digit effective number, decimal point indicated by R.

Units: ohm

## ● Capacitors

Ex: CE 04W 1H 2B2 M BP  
Type Shape Dielectric Capacity Allowable Others

CE : Aluminum foil electrolytic	DJ : 6.3V	F : $\pm 1\%$	HS : High stability type
CA : Aluminum solid electrolytic	1A : 10V	G : $\pm 2\%$	BP : Non-polar type
CB : Tantalum electrolytic	1C : 10V	J : $\pm 5\%$	HR : Ripple-resistant type
CD : Film	1E : 25V	K : $\pm 10\%$	DL : For charge and discharge
CK : Ceramic	1V : 35V	M : $\pm 20\%$	HF : For assuming high frequency
CC : Ceramic	1H : 50V	Z : $\pm 80\%$	U : UL part
CP : Oil	2A : 100V	A : $\pm 20\%$	C : CSA part
CM : Mica	2B : 125V	P : $\pm 100\%$	W : UL-CSA type
CH : Metallized	2C : 160V	Q : $\pm 5\%$	F : Lead wire forming
DH : Metallized	2D : 200V	C : $\pm 0.25\mu F$	
	2E : 250V	D : $\pm 0.5\mu F$	
	2H : 500V	E : Others	
	2J : 630V		

## ● Capacity (electrolyte only)

2 2 2  $\Rightarrow$  2200 $\mu F$   
Indicates number of zeros after effective number.  
2-digit effective number.

Units:  $\mu F$ .

2 B 2 2  $\Rightarrow$  2.2 $\mu F$   
1-digit effective number.  
2-digit effective number, decimal point indicated by R.

Units:  $\mu F$ .

## ● Capacity (except electrolyte)

2 2 2  $\Rightarrow$  2200pF=0.0022 $\mu F$   
(More than 2) Indicates number of zeros after effective number.  
2-digit effective number.

Units:  $\mu F$ .

2 2 1  $\Rightarrow$  220pF  
(0 or 1) Indicates number of zeros after effective number.  
2-digit effective number.

Units: pF.

● When the dielectric strength is indicated in AC, "AC" is included after the dielectric strength value.

PARTS LIST OF P.W.B. UNIT  
MAIN P.W.B. UNIT

Note: The symbols in the column "Remarks" indicate the following destinations.  
E3: U.S.A. model, Canada model E1C: China model  
EU: U.S.A. model (AVR-881) E1H: Hong Kong model  
E2: Europe model E1T: Taiwan R.O.C. model  
E1: Asia model

Ref. No.	Part No.	Part Name	Remarks	Ref. No.	Part No.	Part Name	Remarks
<b>SEMICONDUCTORS GROUP</b>				R107C,FL			
IC101	963 0057 903	IC KIA7815AP	J126781500080	FR,SL,SR			
IC102	963 0044 806	IC NJM7915FA	J126791500010	R108C,FL	244 2043 982	Metal oxide 0.22ohm 1W	RS1483AR22JNBST(S)
IC103	960 0196 001	IC NJM7805FA (S)	J126780600130	FR,SL,SR			
IC104	963 0057 709	IC KIA7805AP	J1267805000360	R109C,FL			
IC105	960 0195 808	IC protector ICP-N15	J120001500030	FR,SL,SR			
IC701	960 0174 308	IC TC9273N-007	J080927300000	R110C,FL			
IC702-704	960 0174 502	IC NJM2068DD	J121206800000	FR,SL,SR			
Q104C,FL	960 0196 506	Transistor KSC1845F	J5021845F0000	R112C,FL	963 9003 013	Metal film 1.8 kohm 1/4W (NB)	C060018243520
FR,SL,SR				FR,SL,SR			
Q111-116	960 0196 408	Transistor 2SC1740SR	J5021740S0010	R114C,FL		Metal film 2k ohm 1/4W	C06002026P520
Q117	960 0196 904	Transistor DTC114YS (NPN)	J6020114Y0050	FR,SL,SR			
				R118C,FL	244 2043 937	Metal oxide 10ohm 1W	RS1483A100JNBST(S)
Q161	960 0196 408	Transistor 2SC1740SR	J5021740S0010	FR,SL,SR			
Q171	960 0005 202	Transistor KTC3196 (Y)	J5023196Y0000	R119C,FL			
Q171A,B,C	960 0196 302	Transistor KTA1268BL	J5001268B0050	FR,SL,SR			
Q172-177	960 0005 202	Transistor KTC3196 (Y)	J5023196Y0000	R135,136	963 0045 203	Winding 0.1 ohm 5W	C144R10069110
Q178	960 0005 105	Transistor KTA1266Y	J5001266Y0050	R141,142	963 9003 039	Metal film 1 ohm 1/4W	C060001063050
Q179	960 0189 005	Transistor KSA916Y	J5000916Y0050	R148,149	963 9003 039	Metal film 1 ohm 1/4W	C060001063050
Q180,181	960 0196 302	Transistor KTA1268BL	J5001268B0050	R151		Metal film 68 ohm 1/4W	C060068063520
				R154	963 0043 106	Metal film 2.2 Mohm 1/2W	C060022574000
							for E3,EU
D101-105	963 0020 309	Diode 1SS133T	K000013300520	R155,156	963 9003 039	Metal film 1 ohm 1/4W	C060001063050
D121-126	963 0020 309	Diode 1SS133T	K000013300520	R179		Metal film 47 kohm 1/4W (NB)	C060047343520
D131A,131E	960 0197 107	Diode KBPC604	K047604000020	R181	963 0047 900	Metal film 4.7 ohm 1W	C0604R7065050
D132	963 0020 309	Diode 1SS133T	K000013300520	R184	244 2043 937	Metal oxide 10ohm 1W	RS1483A100JNBST(S)
D133,134	963 0046 202	Zener diode MTZJ108	K06018R044520	R185	963 9003 039	Metal film 1 ohm 1/4W	C060001063050
D135	963 0020 309	Diode 1SS133T	K000013300520				
D136	963 0058 504	Zener diode MTZJ11B	K08011R044520	R701L,R		Carbon chip 390 ohm 1/10W	C200039160200
D137	963 0020 309	Diode 1SS133T	K000013300520	R702L,R		Carbon chip 470 ohm 1/10W	C200047160200
D138	960 0117 608	Diode 1N4004A	K040400400520	708L,R			
D141-146	960 0117 608	Diode 1N4004A	K040400400520	R709L,R		Carbon chip 68 kohm 1/10W	C200068360200
D148	963 0020 309	Diode 1SS133T	K000013300520	R710L,R	963 9003 071	Carbon chip 2.7 Mohm 1/10W	C200027580200
D149,150	960 0117 608	Diode 1N4004A	K040400400520	716L,R			
D151	963 0020 309	Diode 1SS133T	K000013300520	R717L,R		Carbon chip 150 kohm 1/10W	C200015460200
D152,153	960 0117 608	Diode 1N4004A	K040400400520	R718L,R		Carbon chip 47 ohm 1/10W	C200047060200
D154	963 0047 405	Zener diode MTZJ7.5B	K06007R544520	R719L,R		Carbon chip 240 ohm 1/10W	C200024160200
D157	960 0014 905	Zener diode MTZJ20B	K06020R044520	R720L,R		Carbon chip 130 kohm 1/10W	C200013460200
				R721L,R		Carbon chip 1 Mohm 1/10W	C200011360200
D158-160	963 0020 309	Diode 1SS133T	K000013300520	R722L,R		Carbon chip 100 ohm 1/10W	C200010160200
D25,252	960 0197 000	Diode KDS160	K005016000010	R725L,R			
D253,254	960 0197 000	Diode KDS160	K005016000010	R726L,R		Carbon chip 100 kohm 1/10W	C200010460200
D255,256	960 0197 000	Diode KDS160	K005016000010	R728L,R		Carbon chip 39 kohm 1/10W	C200039360200
				R729L,R		Carbon chip 100 ohm 1/10W	C200010160200
				R730L,R		Carbon chip 100 kohm 1/10W	C200010460200
				R731L,R		Carbon chip 39 kohm 1/10W	C200039360200
				R732L,R			
				R737L,R		Carbon chip 22 ohm 1/10W	C200022060200
				R751L,R		Carbon chip 100 kohm 1/10W	C200010460200
<b>RESISTORS GROUP</b>							
R104C,FL	244 2052 957	Metal oxide 5.6kohm 1W	RS1483A562JNBST(S)				
FR,SL,SR							
R105C,FL							
FR,SL,SR							
R106C,FL	963 0047 900	Metal film 4.7 ohm 1W	C0604R7065050				
FR,SL,SR							

Ref. No.	Part No.	Part Name	Remarks
VR101-105	960 0091 601	Semi fixed resistor 1 kohm	C544102015130
<b>CAPACITORS GROUP</b>			
C101C,FL, FR,SL,SR	963 9003 084	Electrolytic 47µF/50V	D040470087060
C102C,FL, FR,SL,SR		Electrolytic 10µF/50V	D040100087050
C103C,FL, FR,SL,SR		Ceramic 100pF/500V	D00410106D050
C104C,FL, FR,SL,SR		Ceramic 0.022µF/25V	D005223594520
C105C,FL, FR,SL,SR	960 9003 108	Ceramic 0.022µF/25V	D005223594520
C107C,FL, FR,SL,SR	960 0177 305	Mylar film 0.1µF/250V	D02010407H080
C131-135		Mylar film 0.1µF/250V	D02010407H080
C136,137		Electrolytic 1000µF/63V	D040103088380
C138		Electrolytic 1µF/50V	D040010087080
C141-143	963 0021 900	Mylar film 0.047µF/100V	D02047306C060
C144	963 9003 123	Electrolytic 3300µF/10V	D040332085010
C145		Electrolytic 1000µF/35V	D040102085040
C146		Electrolytic 1µF/50V	D040010087080
C148		Electrolytic 1µF/50V	D040010087080
C150-152	963 0021 900	Mylar film 0.047µF/100V	D02047306C060
C153	963 0021 104	Electrolytic 6800µF/16V	D040682083000
C154	963 9003 136	Electrolytic 47µF/16V	D040470083100
C157		Electrolytic 1µF/50V	D040010087080
C158		Electrolytic 1000µF/25V	D040102084060
C159		Electrolytic 1µF/50V	D040010087080
C161	963 0020 202	Electrolytic 10µF/35V	D040100085050
C171		Electrolytic 100µF/10V	D040101082060
C171A,B,C		Ceramic 0.1µF/50V	D005104597530
C172,173		Electrolytic 220µF/6.3V	D040221081230
C174	963 9003 149	Electrolytic 10µF/50V	D040100087050
C175		Electrolytic 4.7µF/50V	D0404R7087100
C176,177		Electrolytic 1µF/50V	D040010087080
C178		Electrolytic 330µF/63V	D040331088230
Δ C181	960 0177 305	Ceramic 0.001µF/250V (AG)	D00047208C060
C182	963 9003 194	Electrolytic 10µF/100V	D04010008C050
C191-197		Ceramic 2200pF/16V	D005222773530
C198C,FL, FR,SL,SR, C199FL,FR		Mylar film 0.0022µF/100V	D02022206C060
		for E2	
C251,252	963 9003 194	Ceramic chip 0.01µF/50V	D011103777200
C701L,R		Ceramic chip 220pF/50V	D010221167200
C709L,R		Electrolytic 10µF/35V	D040100085100
C710L,R		Ceramic chip 100pF/50V	D010101167200
C711L,R	963 9003 194	Electrolytic 220µF/6.3V	D040221081050
C712L,R		Mylar film 0.024µF/50V	D020243167050

Ref. No.	Part No.	Part Name	Remarks
C713L,R	963 9003 152	Mylar film 0.0068µF/100V	D02068206C060
C714L,R		Electrolytic 4.7µF/50V	D0404R7087250
C715L,R		Ceramic chip 0.022µF/50V	D011223777200
C716L,R		Electrolytic 10µF/35V	D040100085100
C718L,R	963 9003 152	Electrolytic 10µF/35V	D040100085100
C719L,R		Electrolytic 1µF/50V	D040010087080
C720L,R		Mylar film 0.068µF/100V	D02068306C060
C721L,R		Electrolytic 10µF/35V	D040100085100
C723L,R	963 9003 152	Ceramic chip 0.01µF/50V	D011103777200
C724L,724R		Electrolytic 4.7µF/50V	D0404R7087250
C725,726		Electrolytic 4.7µF/50V	D0404R7087250
C727,728		Electrolytic 4.7µF/50V	D0404R7087250
JR251	963 9003 152	Ceramic chip 0.01µF/50V	D011103777200

<b>OTHER PARTS GROUP</b>				Qty
CN701	963 0048 707	16P connector base	L101352371110	1
CN702	963 0048 600	11P connector base	L101352371110	1
CP101	960 0197 505	2P connector base	L108202000220	1
CP102	960 0123 304	2P connector base	L104353290200	1
CP103	960 0128 901	3P connector base	L104353280300	1
CP104	960 0128 804	6P connector base	L102526700600	1
CP105	960 0123 304	2P connector base	L104353290200	1
			for E2,E1,E1C, E1H,E1T	
CP106	960 0123 207	3P connector base	L102526700300	1
CP501	963 0046 901	9P connector base	L101353360910	1
CP502-504	963 0048 608	5P connector base	L101353360510	3
CP505	963 0048 705	6P connector base	L101353360610	1
CP553	963 0048 802	20P connector base	L101353362010	1
CP901	963 0048 909	3P connector base	L101220030000	1
CP931	960 0123 304	2P connector base	L104353290200	1
			for E2,E1,E1C, E1H,E1T	
Δ F101	960 0188 705	Fuse 8A	G650802121080	1
			for E3,EU	
Δ F101	960 0142 605	Fuse 2.5A	G650252251180	1
			for E2	
Δ F101L,R	960 0005 804	Fuse clip	G645000050010	2
			for E3,E1,E2,E1C	
Δ F102	960 0188 705	Fuse 8A	G650802121080	1
			for E3,EU	
Δ F102	963 0044 709	Fuse 3.15A	G650312251180	1
			for E2,E1C	
Δ F102L,102R	960 0005 804	Fuse clip	G645000050010	2
GND101,102	960 9006 800	Terminal	3790040876010	2
JK101	960 0194 304	8P speaker terminal	G598041680020	1
JK102	960 0188 608	4P speaker terminal	G612041037310	1

## PROCESSOR P.W.B. UNIT

Ref. No.	Part No.	Part Name	Remarks	QTY	Ref. No.	Part No.	Part Name	Remarks
SEMICONDUCTORS GROUP								
JK103	960 0194 809	2P speaker terminal	G611021078110	1	IC201	963 0057 408	IC CXP740096-124Q	J020740096124
Δ JK104	960 0187 803	AC outlet(2P)	G435204004010	1	IC202	963 0057 602	IC TDA7330BD	J080733000010
			for E3,EU					for E2
L101C,FL	963 0048 005	Inductor 0.5μH	D330R5000000	5	IC203	960 0080 201	IC KIC9164AN	J040916400020
FR,SL,SR					IC204	963 0043 603	IC KIC9482F	J084948200010
L701L,R	235 9003 002	FTZ CHOKE COIL	D30070000030	2	IC205-210	960 0174 502	IC NJM2068DD	J121206800000
			for E2					
LABEL	963 0059 914	FUSE LABEL(2A)	5527200040010	1	IC301	960 0180 004	IC LC75721E	J127757210010
			for E1C		IC302	960 0195 400	IC PC74HC4094	J040744094020
RLY101-104	960 0181 702	Relay (G5PA-28 24V)	G680240502020	4	RMC301	960 0181 100	IC NJL64H380A	E940643800000
RLY105	960 0176 500	Relay (G5V-2 24V)	G680240501010	1	Q201	269 0054 901	Transistor DTC144EK	J5220144E0210
RLY106	960 0181 605	Relay (G5PA-1-8 12V)	G680120502010	1	Q202	963 0045 902	Transistor 2SC2412KT	J5222412K0210
TP101-105	960 0161 405	3P connector base	L101530140310	5	Q203,204	960 0196 807	Transistor 2SK117Y	J5441170Y0050
—	—	Heat sink	2120043538050	1	Q205	269 0093 904	Transistor DTA144ES	J6000144E0010
—	—	Heat sink	2120044308010	1	Q206	269 0040 902	Transistor DTC144ES	J6020144E0010
—	—	Capacitor cover	4310002640010	1	Q207,208	960 0196 807	Transistor 2SK117Y	J5441170Y0050
			for E2,E1,E1C,		Q209	269 0093 904	Transistor DTA144ES	J6000144E0010
			E1H,E1T		Q210	269 0040 902	Transistor DTC144ES	J6020144E0010
Δ	960 0185 708	Power trans. (Mini)	8200280900010	1	Q211-213	960 0196 807	Transistor 2SK117Y	J5441170Y0050
			for E3,EU		Q214	269 0046 906	Transistor DTA114ES	J6000114E0010
Δ	960 0185 711	Power trans. (Mini)	8201280000010	1	Q215	269 0020 906	Transistor DTC114ES	J6020114E0010
			for E2		Q216	269 0046 906	Transistor DTA114ES	J6000114E0010
Δ	960 0185 737	Power trans. (Mini)	8200801500030	1	Q300,301	269 0055 900	Transistor DTA144EK	J5200144E0210
			for E1,E1H,E1T		Q302,304	269 0054 901	Transistor DTC144EK	J5220144E0210
Δ	960 0186 724	Power trans. (Mini)	8200280900010	1	Q305	269 0055 900	Transistor DTA144EK	J5200144E0210
			for E1C		Q306-314	269 0082 902	Transistor DTC114EK	J5220114E0210
—	963 0018 007	Screw (2S 3x8 ZNY/BH)	B020030061810	3	D201	960 0197 000	Diode KDS160	K005016000010
—	960 0188 103	2P pin jack	G601020180000	1	D202	960 0117 608	Diode 1N4004A	K040400400520
—	960 0188 200	4P pin jack	G602040610000	2	D203	963 0020 309	Diode 1SS133T	K000013300520
—	960 0188 307	6P pin jack	G603060610010	1	D204,205	960 0197 000	Diode KDS160	K005016000010
—	—	Wire clamp	4330000120000	2	D206	960 0197 000	Diode KDS160	K005016000010
								for E2
					D207	960 0197 000	Diode KDS160	K005016000010
					D208,209	963 0020 309	Diode 1SS133T	K000013300520
					D210-212	960 0197 000	Diode KDS160	K005016000010
					D302-304	963 0020 309	Diode 1SS133T	K000013300520
					D305-307	960 0197 000	Diode KDS160	K005016000010
					ZD201	963 0047 502	Zener diode MTZJ3.3B	K06003R344520
					ZD301	960 0095 801	Zener diode MTZJ6.8B	K06006R844520
					ZD302,303	960 0095 704	Zener diode MTZJ6.2B	K06006R244520
					ZD305,306	960 0095 704	Zener diode MTZJ6.2B	K06006R244520
					LED301-307	960 0197 204	LED P15-RD/HL50RDRF4T	K500052015010
					LED308,309	960 0189 209	LED P13-RD/HL30RDRF3	K500032002080

Ref. No.	Part No.	Part Name	Remarks	Ref. No.	Part No.	Part Name	Remarks
RESISTORS GROUP							
R202		Carbon chip 1 kohm 1/10W	C200010260200	R247C,SL		Carbon chip 470 ohm 1/10W	C200047160200
R204		Carbon chip 4.7 kohm 1/10W	C200047260200	SR,SW			
R205		Carbon chip 10 kohm 1/10W	C200010360200	R250		Carbon chip 470 kohm 1/10W	C200047460200
R206		Carbon chip 220 kohm 1/10W	C200022460200	R255,256		Carbon chip 470 kohm 1/10W	C200047460200
R207		Carbon chip 10 kohm 1/10W	C200010360200	R259		Carbon chip 10 kohm 1/10W	C200010360200
R208		Carbon chip 10 kohm 1/10W	C200010360200	R261		Carbon chip 12 kohm 1/10W	C200012360200
R210FL,FR		Carbon chip 4.3 kohm 1/10W	C200043260200	R262		Carbon chip 10 kohm 1/10W	C200010360200
R211		Carbon chip 10 kohm 1/10W	C200010360200	R263,264		Carbon chip 12 kohm 1/10W	C200012360200
R212		Carbon chip 1 kohm 1/10W	C200010260200	R265-271		Carbon chip 470 ohm 1/10W	C200047160200
R213FR,		Carbon chip 15 kohm 1/10W	C200015360200	R273,274	244 2051 961	Metal film 100 ohm 1W	C060010165060
R214FL,FR							
R215FL,FR		Carbon chip 100 ohm 1/10W	C200010160200	R317		Carbon chip 470 ohm 1/10W	C200047160200
R216		Carbon chip 10 kohm 1/10W	C200010360200	R336		Carbon chip 4.7 kohm 1/10W	C200047260200
		for E3,EU,E2		R337		Carbon chip 47 kohm 1/10W	C200047360200
R216FL,FR		Carbon chip 100 kohm 1/10W	C200010460200	R338		Carbon chip 470 ohm 1/10W	C200047160200
R217		Carbon chip 15 kohm 1/10W	C200015360200	R339		Carbon chip 1 Mohm 1/10W	C200012260200
		for E3,EU,E1C,E1H,E1T		R340-348		Carbon chip 680 ohm 1/10W	C200068160200
R217FL,FR		Carbon chip 6.2 kohm 1/10W	C200062260200	R349FL		Carbon chip 56 kohm 1/10W	C200056360200
R218		Carbon chip 18 kohm 1/10W	C200018360200	R350		Carbon chip 470 ohm 1/10W	C200047160200
		for E2		R350FL-402FL		Carbon chip 56 kohm 1/10W	C200056360200
R218		Carbon chip 10 kohm 1/10W	C200010360200	R407		Carbon chip 4.7 kohm 1/10W	C200047260200
		for E1,E1C,E1H,E1T				for E2,E1,E1C,E1H,E1T	
R220SW		Carbon chip 8.2 kohm 1/10W	C200082260200	CAPACITORS GROUP			
R221SW		Carbon chip 3.6 kohm 1/10W	C200036260200	BC201	963 0061 504	Electrolytic 8200μF/5.5V	D040822080010
R222SW		Carbon chip 8.2 kohm 1/10W	C200082260200				
R223,224		Carbon chip 10 kohm 1/10W	C200010360200	C201		Electrolytic 100μF/10V	D040101082060
		for E2		C201S		Ceramic 0.01μF/16V	D005103773530
R223,224		Carbon chip 100 kohm 1/10W	C200010460200	C202,203		Ceramic chip 0.01μF/50V	D011103777200
		for E3,EU,E1C,E1H,E1T		C204		Electrolytic 4.7μF/50V	D0404R7087100
R223SW		Carbon chip 100 ohm 1/10W	C200010160200	C205		Ceramic chip 0.1μF/50V	D011104777200
R224SW		Carbon chip 100 kohm 1/10W	C200010460200			for E3,EU	
R225		Carbon chip 2.2 Mohm 1/10W	C200022560200	C206		Electrolytic 47μF/16V	D040470083080
		for E2				for E2	
R229,230	244 2051 961	Metal film 100 ohm 1W	C060010165060	C207		Ceramic 0.01μF/16V	D005103773530
R237		Carbon chip 1 kohm 1/10W	C200010260200			for E2	
R238C,FL,		Carbon chip 100 kohm 1/10W	C200010460200	C208		Ceramic 270pF/50V	D005271277520
FR,SL,SR,SW						for E2	
R240C,FL,		Carbon chip 100 ohm 1/10W	C200010160200	C209		Electrolytic 10μF/50V	D040100087050
FR,SL,SR,SW						for E2	
R241C,FL,		Carbon chip 100 kohm 1/10W	C200010460200	C210		Ceramic chip 0.01μF/50V	D011103777200
FR,SL,SR,SW						for E2	
R242C,FL,		Carbon chip 7.5 kohm 1/10W	C200075260200	C211		Ceramic chip 22pF/50V	D010220167200
FR,SL,SR						for E2	
R242SW		Carbon chip 6.8 kohm 1/10W	C200068260200	C211SW		Ceramic chip 100pF/50V	D010101167200
R243C,FL,FR		Carbon chip 10 kohm 1/10W	C200010360200	C212		Ceramic chip 22pF/50V	D010220167200
R244C,FL,		Carbon chip 1.3 kohm 1/10W	C200013260200			for E2	
FR,SL,SR				C212SW		Ceramic chip 47pF/50V	D010470167200
R244SW		Carbon chip 620 ohm 1/10W	C200062160200	C213-219		Ceramic chip 0.047μF/50V	D011473777200
R246C,SL,		Carbon chip 100 kohm 1/10W	C200010460200	C213FL,FR		Ceramic chip 100pF/50V	D010101167200
SR,SW				C218FL,FR		Ceramic chip 33pF/50V	D010330167200

Ref. No.	Part No.	Part Name	Remarks
C219,FL,FR		Electrolytic 10μF/35V	D040100085100
SW,C220		Electrolytic 10μF/35V	D040100085100
C221,FL,FR		Electrolytic 4.7μF/50V	D0404R7087100
C222SW,			
C223SL,SR			
C225,226		Ceramic chip 0.047μF/50V	D011473777200
C227		Electrolytic 10μF/35V	D040100085100
C228-230		Ceramic chip 100pF/50V	D010101167200
C230C,		Electrolytic 4.7μF/50V	D0404R7087100
C231C,SL,			
SR,SW			
C231-234		Ceramic chip 100pF/50V	D010101167200
C231,FL,FR		Electrolytic 10μF/35V	D040100085100
C232C,FL,		Ceramic chip 56pF/50V	D010660167200
FR,SW			
C232SL,SR		Ceramic chip 39pF/50V	D010390167200
C233C,FL,FR		Ceramic chip 2200pF/50V	D011222777200
C234C,FL,FR		Ceramic chip 680pF/50V	D010681167200
C235,236SW		Ceramic chip 100pF/50V	D010101167200
C236		Electrolytic 1μF/50V	D040010087080
C237		Electrolytic 0.1μF/50V	D040R10087070
C238		Electrolytic 1μF/50V	D040010087080
C239		Ceramic chip 0.047μF/50V	D011473777200
C240		Electrolytic 1μF/50V	D040010087080
C241		Electrolytic 10μF/35V	D040100085100
C242		Ceramic chip 1000pF/50V	D010102167200
C243,244		Ceramic chip 0.047μF/50V	D011473777200
C245		Ceramic chip 100pF/50V	D010101167200
C246		Electrolytic 10μF/35V	D040100085100
C246SW		Electrolytic 4.7μF/50V	D0404R7087100
C247		Ceramic chip 100pF/50V	D010101167200
C248		Ceramic chip 1000pF/50V	D010102167200
C249	960 9003 108	Ceramic 0.022μF/25V	D005223594520
C250		Ceramic chip 100pF/50V	D010101167200
C251		Electrolytic 22μF/16V	D040220083070
C301-304		Ceramic chip 0.01μF/50V	D011103777200
C305-308		Ceramic chip 100pF/50V	D010101167200
C309		Ceramic chip 0.022μF/50V	D011223777200
C310		Ceramic chip 100pF/50V	D010101167200
C311		Ceramic chip 30pF/50V	D010300167200
C312		Ceramic chip 0.047μF/50V	D011473777200
C313		Mylar film 0.01μF/100V	D02010306C060
C314	963 0021 900	Mylar film 0.047μF/100V	D02047306C060
C315		Electrolytic 1μF/50V	D040010087080
C316		Electrolytic 10μF/50V	D040100087050
C317		Electrolytic 47μF/10V	D040470082050
C318	963 0021 900	Mylar film 0.047μF/100V	D02047306C060
C319		Electrolytic 10μF/35V	D040100085100
C320		Electrolytic 1μF/50V	D040010087080
C321	963 0021 900	Mylar film 0.047μF/100V	D02047306C060
C322		Electrolytic 33μF/50V	D040330087060

Ref. No.	Part No.	Part Name	Remarks
C323		Mylar film 0.1μF/100V	D02010406C060
C324		Electrolytic 47μF/25V	D040470084070
C325,326		Ceramic chip 100pF/50V	D010101167200
C328		Ceramic chip 0.047μF/50V	D011473777200
OTHER PARTS GROUP			
Ref. No.	Part No.	Part Name	Qty
C8201,202	963 0053 800	BEADS INDUCTOR	7610035800020 2
CN301A	960 0197 802	17P FFC connector base	L131520441745 1
CN302	960 0197 806	3P connector cord	L000101030040 1
CN301B	960 0197 709	17P FFC connector base	L131520441745 1
CP301	963 0049 102	3P connector cord	L102526803010 1
CP401	960 0116 803	12P connector base	L101353361210 1
CP402	963 0047 104	11P connector base	L101353361110 1
CP551	963 0061 106	19P connector base	L101353361910 1
CP552	963 0049 403	18P connector base	L101353361810 1
CP601	963 0048 705	6P connector base	L101353360610 1
CP701	963 0047 201	16P connector base	L101353361610 1
CP702	963 0047 104	11P connector base	L101353361110 1
CP801	963 0047 201	16P connector base	L101353361610 1
CP802	963 0049 403	18P connector base	L101353361810 1
CP803	963 0048 705	6P connector base	L101353360610 1
CP901	963 0060 806	11P connector base	L101220110000 1
J324-326		Carbon chip 0 ohm 1/8W	C200000061300 3
J355		Carbon chip 0 ohm 1/8W	C200000061300 1
L301	960 0010 307	Inductor 10μH	D330100700520 1
L302	960 0128 006	Inductor 100μH	D330101001020 1
SW301-322	963 0045 708	Tact switch	G180000270010 22
VEC301,302	960 0181 207	Rotary encoder	G121162420400 2
		for E3,EU,E2,E1T	
VEC301,302	212 0422 003	Rotary encoder	for E1,E1C,E1H 2
X201	960 0181 003	Resonator CST12.0MTW-TF01	E830120000050 1
X202	960 0091 805	Crystal 4.332MHz	E8004R3320051 1
		for E2	
—	960 0184 408	FLT holder	4320200026000 1
—	960 0180 509	FLT (16-ST-42GAK)	K530164200010 1
—	—	Earth wire	L046221014580 1

## CNT P.W.B. UNIT

Ref. No.	Part No.	Part Name	Remarks
SEMICONDUCTORS GROUP			
IC401	963 0043 700	IC LC72131	J120721310030
IC402	963 0043 904	IC LA1266	J124126600010
IC403	963 0044 000	IC LA3401	J124340100010
IC551	960 0174 502	IC NJM2068DD	J121206800000
IC552	963 0043 506	IC TC9184AP	J080918400010
IC601	960 0175 200	IC BA7625	J171782500000
IC602	960 0195 400	IC PC74HC4094	J040744094020
IC651,652	960 0175 200	IC BA7625	J171782500000
IC653	963 0057 806	IC KA78R05PI	J126780500370
Q401	960 0189 102	Transistor KTC3880S-O	J522388000210
Q402-404	269 0083 901	Transistor DTA114EK	J5200114E0210
Q405,406	960 0196 603	Transistor KTC2874B	J502287400010
Q407	963 0024 208	Transistor DTC114YK	J5220114Y0210
Q408	269 0083 901	Transistor DTA114EK	J5200114E0210
Q409	960 0189 102	Transistor KTC3880S-O	J522388000210
		for E2	
Q551	960 0196 700	Transistor KTC3200BL	J502320090050
Q551SW,	960 0196 603	Transistor KTC2874B	J502287400010
552SW			
Q552	960 0196 302	Transistor KTA1268BL	J500126880050
Q553-555	269 0046 906	Transistor DTA114ES	J6000114E0010
Q553T	960 0196 904	Transistor DTC114YS (NPN)	J6020114Y0050
Q601-603	960 0005 105	Transistor KTA1266Y	J5001266Y0050
Q651-656	960 0005 105	Transistor KTA1266Y	J5001266Y0050
D403	960 0197 000	Diode KDS160	K005016000010
D404	963 0020 309	Diode 1SS133T	K000013300520
D405,406	960 0197 000	Diode KDS160	K005016000010
D551,551T,	963 0020 309	Diode 1SS133T	K000013300520
552			
D552T	963 0058 601	Zener diode MTZJ12B	K06012R044520
D553-561	963 0020 309	Diode 1SS133T	K000013300520
D562	960 0117 608	Diode 1N4004A	K040400400520
D564	960 0095 607	Zener diode MTZJ5.6B	K06005R644520
D565	963 0020 309	Diode 1SS133T	K000013300520
D601-606	960 0197 000	Diode KDS160	K005016000010
D651-656	960 0197 000	Diode KDS160	K005016000010
D652T	963 0061 601	Electrolytic 3300μF/10V	D040332082020
D657,658	960 0117 608	Diode 1N4004A	K040400400520
D901,902	960 0197 000	Diode KDS160	K005016000010
ZD401	960 0095 500	Zener diode MTZJ5.1B	K06005R144520
Ref. No.	Part No.	Part Name	Remarks
RESISTORS GROUP			
R401		Carbon chip 10 ohm 1/10W	C200010060200
R403		Carbon chip 470 ohm 1/10W	C200047160200
R404		Carbon chip 100 kohm 1/10W	C200010460200
R405	960 9003 807	Metal film 100 ohm 1/4W	C060010163050
R406		Carbon chip 4.7 kohm 1/10W	C200047260200
R407		Carbon chip 470 ohm 1/10W	C200047160200
R408		Carbon chip 1 Mohm 1/10W	C200012260200
		for E3,EU,E1,E1C,E1H,E1T	
R408		Carbon chip 680 ohm 1/10W	C200068160200
		for E2	
R409		Carbon chip 470 ohm 1/10W	C200047160200
R411		Carbon chip 68 kohm 1/10W	C200068360200
R412		Carbon chip 5.6 kohm 1/10W	C200056260200
R413		Metal film 220 ohm 1/4W	C060022163050
R414		Carbon chip 2.2 kohm 1/10W	C200022260200
R415		Carbon chip 1 kohm 1/10W	C200010260200
R416		Metal film 680 ohm 1/4W	C060068163050
R417		Carbon chip 1 kohm 1/10W	C200010260200
R418		Carbon chip 33 kohm 1/10W	C200033360200
R420		Carbon chip 3.3 kohm 1/10W	C200033260200
R423		Carbon chip 22 kohm 1/10W	C200022260200
R424		Carbon chip 4.7 kohm 1/10W	C200047260200
R426,427		Carbon chip 10 kohm 1/10W	C200010360200
R428		Carbon chip 3.3 kohm 1/10W	C200033260200
R429		Carbon chip 82 ohm 1/10W	C200082060200
R430	960 9003 807	Metal film 100 ohm 1/4W	C060010163050
R431		Carbon chip 5.1 kohm 1/10W	C200051260200
R432		Carbon chip 10 kohm 1/10W	C200010360200
R434	960 9003 807	Metal film 100 ohm 1/4W	C060010163050
R435		Carbon chip 3.3 kohm 1/10W	C200033260200
R437		Carbon chip 100 kohm 1/10W	C200010460200
R436,439		Carbon chip 100 kohm 1/10W	C200010460200
		for E3,EU,E1,E1C,E1H,E1T	
R438,439		Carbon chip 180 kohm 1/10W	C200018460200
		for E2	
R440,441		Carbon chip 120 kohm 1/10W	C200012460200
		for E3,EU,E1,E1C,E1H,E1T	
R440,441		Carbon chip 220 kohm 1/10W	C200022460200
		for E2	
R442,443		Carbon chip 3.3 kohm 1/10W	C200033260200
R444,445		Carbon chip 1.2 kohm 1/10W	C200082260200
		for E3,EU,E1,E1C,E1H,E1T	
R448		Carbon chip 2.2 kohm 1/10W	C200022260200
R449		Carbon chip 3.9 kohm 1/10W	C200039260200
		for E2	
R450		Carbon chip 1 kohm 1/10W	C200010260200
		for E2	
R455		Carbon chip 330 ohm 1/10W	C200033160200
R456		Carbon chip 100 ohm 1/10W	C200010160200
R458,459		Carbon chip 4.7 kohm 1/10W	C200047260200
R460,461	963 9003 071	Carbon chip 2.7 Mohm 1/10W	C200027560200



Ref. No.	Part No.	Part Name	Remarks	Ref. No.	Part No.	Part Name	Remarks
R462-465	963 9003 071	Carbon chip 470 ohm 1/10W	C200047160200	R683		Carbon chip 75 ohm 1/10W	C200075060200
R467,468		Carbon chip 2.7 Mohm 1/10W	C200027560200	R901,902		Carbon chip 200 kohm 1/10W	C200020460200
R470		Carbon chip 1 kohm 1/10W	C200010260200	R903,904		Carbon chip 100 ohm 1/10W	C200010160200
R471VT		Carbon chip 220 ohm 1/10W	C200022160200	R903H,904H		Metal film 470ohm 2W	C060047166520
R472		Carbon chip 100 ohm 1/10W	C200001060200	R905,906		Carbon chip 200 kohm 1/10W	C200020460200
R473		Carbon chip 180 ohm 1/10W	C200018160200	R907,908		Carbon chip 100 ohm 1/10W	C200010160200
			for E2	R909,910		Carbon chip 200 kohm 1/10W	C200020460200
R473		Carbon chip 0 ohm 1/10W	C200000060200	R911,912		Carbon chip 100 ohm 1/10W	C200010160200
			for E3,EU,E1,E1C,E1H,E1T	R913-916		Carbon chip 220 ohm 1/10W	C200022160200
R475		Carbon chip 12 kohm 1/10W	C200012360200	R917-920		Carbon chip 100 kohm 1/10W	C200010460200
R476		Carbon chip 56 kohm 1/10W	C200056360200	VR401	960 0096 305	Semi fixed resistor 10kohm	C541103115000
R478		Carbon chip 10 kohm 1/10W	C200010360200	VR402	960 0096 402	Semi fixed resistor 100kohm	C541104150000
R479		Carbon chip 100 kohm 1/10W	C200010460200			for E2	
R551SW, 552SW		Carbon chip 470 ohm 1/10W	C200047160200	VR402	963 0056 205	Semi fixed resistor 50kohm	C541503115000
R553FL_FR		Carbon chip 100 kohm 1/10W	C200010460200			for E3,EU,E1,E1C,E1H,E1T	
R553SW		Carbon chip 22 kohm 1/10W	C200022360200	VR403	963 0052 005	Semi fixed resistor 200kohm	C541204115000
R553T		Carbon chip 1 kohm 1/10W	C200010260200	<b>CAPACITORS GROUP</b>			
R554SW		Carbon chip 10 kohm 1/10W	C200010360200	C401,402		Ceramic chip 1000pF/50V	D011102777200
R554T	244 2052 928	Metal film 47 ohm 1W	C060047065060	C403		Ceramic chip 0.022µF/50V	D011223777200
R558FL_FR		Carbon chip 4.7 kohm 1/10W	C200047280200	C404		Ceramic 2pF/50V	D000020007050
R559	960 9005 902	Metal film 1.2 kohm 1/4W	C060012263050	C405		Ceramic chip 0.022µF/50V	D011223777200
R559FL_FR		Carbon chip 22 kohm 1/10W	C200022360200	C406		Ceramic chip 18pF/50V	D010180167200
R560FL_FR		Carbon chip 510 kohm 1/10W	C200051460200	C408		Ceramic 6pF/50V	D000060007050
R561FL_FR		Carbon chip 33 kohm 1/10W	C20003360200	C409		Ceramic 100pF/50V	D005101177520
R563FL_FR		Carbon chip 390 ohm 1/10W	C200039160200	C410		Ceramic 470pF/50V	D005471277520
R564FL_FR		Carbon chip 470 ohm 1/10W	C200047160200	C411		Ceramic chip 1000pF/50V	D011102777200
R565	960 9005 902	Metal film 1.2 kohm 1/4W	C060012263050	C412		Ceramic chip 0.022µF/50V	D011223777200
R567FL_FR		Carbon chip 470 kohm 1/10W	C200047460200	C413		Ceramic chip 100pF/50V	D010101167200
R568		Carbon chip 68 ohm 1/10W	C200068060200	C414		Electrolytic 2.2µF/50V	D0402R2067100
R570	960 9005 902	Metal film 1.2 kohm 1/4W	C060012263050	C415		Electrolytic 47µF/25V	D040470084070
				C416		Electrolytic 10µF/35V	D040100085100
R651-658		Carbon chip 75 ohm 1/10W	C200075060200	C417		Electrolytic 100µF/16V	D040101083100
R651T,652T	963 9003 039	Metal film 1 ohm 1/4W	C060001063050	C418		Ceramic chip 0.01µF/50V	D011103777200
R660		Carbon chip 10 kohm 1/10W	C200010360200	C419		Electrolytic 10µF/35V	D040100085100
R661	244 2051 961	Metal film 100 ohm 1W	C060010165060	C420,421		Ceramic chip 22pF/50V	D010220167200
R662		Carbon chip 68 ohm 1/10W	C200068060200	C422		Ceramic chip 470pF/50V	D010471167200
R663		Carbon chip 10 kohm 1/10W	C200010360200	C423,424		Ceramic chip 0.022µF/50V	D011223777200
R664	244 2051 961	Metal film 100 ohm 1W	C060010165060	C425		Electrolytic 4.7µF/50V	D0404R7087100
R665		Carbon chip 68 ohm 1/10W	C200068060200	C426		Electrolytic 3.3µF/50V	D0403R3087100
R666		Carbon chip 10 kohm 1/10W	C200010360200	C427		Electrolytic 4.7µF/50V	D0404R7087100
R667	244 2051 961	Metal film 100 ohm 1W	C060010165060	C428		Ceramic chip 0.022µF/50V	D011223777200
R671		Carbon chip 68 ohm 1/10W	C200068060200	C430	963 0021 900	Mylar film 0.047µF/100V	D02047306C060
R672		Carbon chip 10 kohm 1/10W	C200010360200	C431		Ceramic chip 33pF/50V	D010330167200
R673	244 2051 961	Metal film 100 ohm 1W	C060010165060	C432		Electrolytic 47µF/25V	D040470084070
R674		Carbon chip 68 ohm 1/10W	C200068060200	C433		Ceramic chip 0.022µF/50V	D011223777200
R675		Carbon chip 10 kohm 1/10W	C200010360200	C434		Electrolytic 1µF/50V	D040010087080
R676	244 2051 961	Metal film 100 ohm 1W	C060010165060			for E3,EU	
R677		Carbon chip 68 ohm 1/10W	C200068060200	C434		Electrolytic 0.33µF/50V	D040R33087100
R678		Carbon chip 10 kohm 1/10W	C200010360200			for E2,E1,E1C,E1H,E1T	
R679	244 2051 961	Metal film 100 ohm 1W	C060010165060				

Ref. No.	Part No.	Part Name	Remarks	Ref. No.	Part No.	Part Name	Remarks
C435,436		Ceramic chip 0.022µF/50V	D011223777200	C580FL_FR		Mylar film 0.0033µF/100V	D02033206C060
C437		Electrolytic 47µF/25V	D040470084070	C581FL, 562FR		Mylar film 0.0068µF/100V	D02068206C060
C438		Electrolytic 1µF/50V	D040010087080				
C439		Electrolytic 0.22µF/50V	D040R22087100	C601-604		Electrolytic 4.7µF/50V	D0404R7087100
C440,441		Electrolytic 1µF/50V	D040010087080	C605		Electrolytic 470µF/6.3V	D040471081080
C442		Electrolytic 2.2µF/50V	D0402R2087100	C606,607		Electrolytic 10µF/16V	D040100083100
C443		Electrolytic 10µF/35V	D040100085100	C608,609		Electrolytic 470µF/6.3V	D040471081080
C444		Electrolytic 4.7µF/50V	D0404R7087100	C610		Electrolytic 10µF/16V	D040100083100
C445		Electrolytic 10µF/35V	D040100085100	C611		Electrolytic 100µF/10V	D040101082080
C446,447		Ceramic 270pF/50V	D004271067080	C612		Electrolytic 100µF/16V	D040101083100
		for E3,EU,E2		C613		Electrolytic 1µF/50V	D040010087080
C446,447		Ceramic 180pF/50V	D000181067080	C614		Ceramic chip 0.047µF/50V	D011473777200
		for E1,E1C,E1H,E1T		C651-658	963 0021 900	Mylar film 0.047µF/100V	D0404R7087100
C448,449		Ceramic 470pF/50V	D004471067080	C651T		Electrolytic 1µF/50V	D040010087080
		for E3,EU		C653T		Electrolytic 470µF/6.3V	D040471081080
C448,449		Ceramic 330pF/50V	D000331167070	C659		Electrolytic 10µF/16V	D040100083100
		for E1,E1C,E1H,E1T		C660		Electrolytic 10µF/16V	D040100083100
C450,451		Electrolytic 10µF/35V	D040100085100	C661		Electrolytic 470µF/6.3V	D040471081080
C452		Electrolytic 100µF/16V	D040101083100	C662		Electrolytic 10µF/16V	D040100083100
C453		Ceramic chip 27pF/50V	D010270167200	C663		Electrolytic 470µF/6.3V	D040471081080
		for E2,E1,E1C,E1H,E1T		C664		Electrolytic 10µF/16V	D040100083100
C455		Ceramic chip 0.022µF/50V	D011223777200	C665		Electrolytic 100µF/10V	D040101082080
		for E1,E1H,E1T		C666		Electrolytic 470µF/6.3V	D040471081080
C456		Ceramic chip 680pF/50V	D010881167200	C667		Electrolytic 10µF/16V	D040100083100
C457-460		Ceramic chip 100pF/50V	D010101167200	C668		Electrolytic 470µF/6.3V	D040471081080
C461		Ceramic chip 22pF/50V	D010220167200	C669		Electrolytic 10µF/16V	D040100083100
C462		Ceramic chip 470pF/50V	D010471167200	C670		Electrolytic 470µF/6.3V	D040471081080
		for E3		C671		Electrolytic 10µF/16V	D040100083100
C463		Mylar film 0.056µF/100V	D02056306C060	C672		Electrolytic 100µF/10V	D040101082080
C464		Ceramic 3pF/50V	D000030007050	C673,674		Electrolytic 1µF/50V	D040010087080
C471VT		Electrolytic 1µF/50V	D040010087080	C675		Electrolytic 100µF/16V	D040101083100
C472VT		Ceramic chip 0.047µF/50V	D011473777200	C676,677		Ceramic chip 0.047µF/50V	D011473777200
				C681-683		Ceramic 100pF/50V	D005101177520
C551		Electrolytic 2.2µF/50V	D0402R2087250	C901-906		Ceramic chip 220pF/50V	D010221167200
C551M		Electrolytic 100µF/35V	D040101085100	C901H,902H		Ceramic 0.001µF/50V	D005102177530
C551S		Ceramic 0.047µF/50V	D005473597520	C903H		Electrolytic 1µF/50V	D040010087080
C551T,552T		Electrolytic 100µF/16V	D040101083100	C904H	960 9003 108	Electrolytic 0.022µF/25V	D005223594520
C552		Electrolytic 0.1µF/50V	D040R10067070	C907-910		Ceramic chip 100pF/50V	D010101167200
C552FL_FR		Electrolytic 10µF/50V	D040100085100	C911		Ceramic 0.01µF/50V	D004103087080
C553		Electrolytic 0.1µF/50V	D040R10067070				
C553FL_FR		Ceramic chip 100pF/50V	D010101167200	<b>OTHER PARTS GROUP</b>			
C553T,554T		Ceramic chip 0.1µF/50V	D011104777200	CF401,402	960 0187 104	Ceramic filter SFE10.7MA8	E430107000140 2
C554		Electrolytic 0.1µF/50V	D040R10067070			for E3,EU	
C554FL_FR		Electrolytic 10µF/35V	D040100085100	CF401,402	960 0177 509	Ceramic filter SFE10.7MS3GH	E430107000150 2
C555		Ceramic 0.01µF/16V	D005103773530			for E2,E1,E1C, E1H,E1T	
C555FL_FR		Ceramic chip 47pF/50V	D010470167200	CF403	960 0187 609	Ceramic resonator	E830450000070 1
C556		Ceramic 0.01µF/16V	D005103773530				
C556FL_FR		Electrolytic 10µF/35V	D040100085100	CN105	963 0059 105	2P connector base	L000121020040 1
C557		Electrolytic 10µF/35V	D040100085100				
C557FL_FR		Mylar film 0.01µF/100V	D02010306C060				
C558FL_FR		Mylar film 0.056µF/100V	D02056306C060				
C559FL_FR		Mylar film 0.022µF/100V	D02022306C060				



Ref. No.	Part No.	Part Name	Remarks	Qty	Ref. No.	Part No.	Part Name	Remarks	Qty
CN392	960 0198 009	2P connector cord	L000800020040 for E3,EU	1	J654		Carbon chip 0 ohm 1/10W	C200000060200 for E2,E1,E1C, E1H,E1T	1
CN401	960 0117 103	12P connector base	L101352371210	1	J655		Carbon chip 0 ohm 1/8W	C200000061300 for E2,E1,E1C, E1H,E1T	1
CN401E	963 0059 008	7P connector socket	L000101080050	1					
CN402	963 0046 800	11P connector base	L101352371110	1					
CN551	963 0061 009	19P connector base	L101352371910	1					
CN552	963 0050 609	18P connector base	L101352371810	1					
CN553	963 0049 801	20P connector base	L101352372010	1	L401	963 0052 102	Inductor 1μH	D3301R0001020	1
CN554	963 0059 804	15P connector cord	L000800150010	1	L402	960 0010 307	Inductor 10μH	D330100700520	1
CN601	963 0050 308	6P connector socket	L101352370610	1	L403	963 0056 409	MW IF COIL RBW07VB-K5025 BLK	D950500500010	1
CN602	963 0059 503	7P connector cord	L000181070020 for E3,EU	1	RELAY551	963 0052 607	Relay (G5V-2 DC12V)	G680120202010	1
CN802	963 0059 406	7P connector cord	L000181070010 for E2,E1,E1C, E1H,E1T	1	SW391-396	963 0045 708	Tact switch	G180000270010	8
CN901	960 0187 301	3P connector cord	L352103263300	1	SW401	963 0056 700	SLIDE SW	G060110100010 for E1,E1H,E1T	1
CN902	963 0059 800	11P connector cord	L000281110010	1	SW901	963 0056 603	Push switch	G000040089000 for E2,E1,E1C, E1H,E1T	1
CP302	963 0049 908	3P connector base	L101220030010	1					
CP392	963 0048 908	3P connector base	L101220030000 for E3,EU	1	T401	960 0186 600	MW IF COIL PCFMAF-270	D950500200000	1
CP392	963 0059 707	2P connector base	L000351020040 for E2,E1,E1C, E1H,E1T	1	T402	960 0007 349	FM DET TRANS	D951561100000	1
CP602	963 0060 602	7P connector base	L101220070010	1	T403	960 0007 352	FM DET TRANS	D951561200000	1
CP603	960 0123 207	3P connector base	L102526700300	1	T404,405	960 0071 207	MPX filter	E401500100000 for E2	2
FE401	960 0187 706	Front end	E900401010020	1	T406	960 0037 607	antibirdie filter	E403126832410 for E2	1
G901	—	1P wire	8410800010010	1	X401	960 0187 405	Crystal 7.2 MHz	E8007R2000071	1
H/SINK	—	Heat sink	2120210238000 for E2,E1,E1C, E1H,E1T	1	X402	963 0043 302	Resonator CSB456F11	E830456000050	1
J402		Carbon chip 0 ohm 1/8W	C200000061300 for EU,E2,E1, E1C,E1H,E1T	1	—	960 0184 000	Screw bracket	4010210196000	2
J403,404		Carbon chip 0 ohm 1/8W	C200000061300 for E3	2	—	963 0054 003	Shield tuner pack	3070210056000	1
J405-408		Carbon chip 0 ohm 1/8W	C200000061300 for EU,E2,E1, E1C,E1H,E1T	4	—	960 0184 602	Plate	4470210146000	1
J551-556		Carbon chip 0 ohm 1/8W	C200000061300 for E3,EU	6	—	—	1P wire	8410800010030	1
J583,584		Carbon chip 0 ohm 1/8W	C200000061300	2	—	963 0052 403	3P antenna terminal	G593021068010	1
J585,586		Carbon chip 0 ohm 1/10W	C200000060200	2	—	960 0188 200	4P pin jack	G602040610000	1
J587		Carbon chip 0 ohm 1/8W	C200000061300 for E1,E1C,E1H,E1T	1	—	963 0061 708	Plate	4470210196000	1
J651-653		Carbon chip 0 ohm 1/8W	C200000061300 for E2,E1,E1C, E1H,E1T	3	—	963 0057 000	1P pin jack	G600010003030	1
					—	960 0188 404	3P pin jack	G06030164020	2
					—	963 0018 007	Screw (2S 3×8 ZNY/BH)	B02030081810 for E2,E1,E1C, E1H,E1T	1
					—	960 0181 304	3P S terminal	G402042190000	1
					—	960 0181 401	4P S terminal	G403040010010	2
					—	960 0188 307	6P pin jack	G603080610010	1
					—	960 0143 203	AC outlet	G435040110000 for E2,E1,E1H,E1T	1
					—	960 0176 209	Push switch	G000122000010 for E3,EU	1
					—	960 0187 502	Head phone jack(D6.5)	G4020384000031	1
					—	960 0188 200	4P pin jack	G602040610000	1

## PRE-AMP P.W.B. UNIT

Ref. No.	Part No.	Part Name	Remarks	Qty
SEMICONDUCTORS GROUP				
Q501C,FL	960 0196 603	Transistor KTC2874B	J502287400010	
FR,M,SL				
Q501SR				
Q502M,503M				
Q502C,FL	960 0196 205	Transistor KSA92F	J5000992F0050	
FR,SL,SR				
Q503C,FL				
FR,SL,SR				
Q504C,FL	960 0196 506	Transistor KSC1845F	J5021845F0000	
FR,SL,SR				
RESISTORS GROUP				
Q509C,FL	960 9005 902	Metal film 1.2 kohm 1/4W	C060012263050	
FR,SL,SR				
Q511C,FL	960 9004 301	Metal film 47 ohm 1/4W	C060047063050	
FR,SL,SR				
CAPACITORS GROUP				
C501C,FL		Electrolytic 22μF/16V	D040220083070	
FR,SL,SR				
C501M,502C		Electrolytic 10μF/35V	D040100085100	
FL,FR,SL,SR				
C503C,FL	963 9003 165	Ceramic 220pF/500V	D009092212500	
FR,SL,SR				
C504C,FL	963 9003 178	Ceramic 220pF/50V	D005221277520	
FR,SL,SR				
C505C,FL	963 9003 181	Ceramic 33pF/500V	D00033006D050	
FR,SL,SR				
C506C,FL		Electrolytic 100μF/10V	D040101082060	
FR,SL,SR				
C507C,FL	963 9003 194	Mylar film 0.0022μF/100V	D02022206C060	
FR,SL,SR				
C514FL,FR		Electrolytic 10μF/35V	D040100085100	
OTHER PARTS GROUP				
CN501	963 0046 406	9P connector base	L101352370910	1
CN502-504	963 0050 201	5P connector base	L101352370510	3
CN505	963 0050 308	6P connector base	L101352370610	1
CP506	963 0060 709	8P connector base	L101220080000	1
CP554	963 0060 903	15P connector base	L101220150000	1
—	960 0184 000	Screw bracket	4010210196000	2

## DSP P.W.B. UNIT

Ref. No.	Part No.	Part Name	Remarks
SEMICONDUCTORS GROUP			
IC803	963 0023 500	IC MC74HC04AD	J040740400200
IC805,806	963 0043 807	IC BA4510F	J121451000010
IC807	960 0195 002	IC W27C020	J000270200010
IC807S	963 0025 508	32P IC socket	G450320000010
IC808,809	960 0179 206	IC DC74HCT574	J040745740040
IC810	960 0195 507	IC LC89055W	J046890550010
IC811	960 0195 905	IC BA033FP	J12603R300020
IC812	960 0195 701	IC CS492604	J080492604010
IC813	960 0195 604	IC AK4527VQ	J080452700010
IC814-816	960 0174 502	IC NJM2068DD	J121206800020
IC821	960 0195 206	IC TC74HC125D	J040741250130
IC822	960 0195 109	IC SN74LV00APW	J040740000170
IC828	963 0043 409	IC DC74HCT244	J040742440080
IC829	960 0196 001	IC NJM7805FA (S)	J126780500130
IC830	963 0043 409	IC DC74HCT244	J040742440080
IC831	960 0195 303	IC SN74LV4040	J040744040020
Q804C,FL	960 0196 603	Transistor KTC2874B	J502287400010
FR,SL,SR,SW			
Q805	269 0083 901	Transistor DTA114EK	J5200114E0210
Q806	269 0082 902	Transistor DTC114EK	J5220114E0210
Q807	269 0083 901	Transistor DTA114EK	J5200114E0210
D801, 805-807	960 0197 000	Diode KDS180	K005018000010
RESISTORS GROUP			
J824,828		Carbon chip 0 ohm 1/10W	C200000060200
R801		Carbon chip 4.7 kohm 1/10W	C200047260200
R817-825		Carbon chip 10 kohm 1/10W	C200010360200
R829		Carbon chip 0 ohm 1/10W	C200000060200
R830,831		Carbon chip 10 kohm 1/10W	C200010360200
R834,835		Carbon chip 4.7 kohm 1/10W	C200047260200
R836		Carbon chip 10 kohm 1/10W	C200010360200
R837		Carbon chip 47 ohm 1/10W	C200047080200
R838		Carbon chip 10 kohm 1/10W	C200010360200
R839,842		Carbon chip 4.7 kohm 1/10W	C200047260200
R848		Carbon chip 100 ohm 1/10W	C200010180200
R850		Carbon chip 75 ohm 1/10W	C200075060200
R854		Carbon chip 2.2 kohm 1/10W	C200022260200
R854L,R		Carbon chip 47 kohm 1/10W	C200047360200
R855		Carbon chip 100 kohm 1/10W	C200010460200
R856		Carbon chip 10 kohm 1/10W	C200010360200
R858,859		Carbon chip 0 ohm 1/10W	C200000060200
R859R,		Carbon chip 4.7 kohm 1/10W	C200047260200
R860L,R			
R861		Carbon chip 47 ohm 1/10W	C200047060200
R861L,R		Carbon chip 470 ohm 1/10W	C200047160200
R862,863		Carbon chip 0 ohm 1/10W	C200000060200
R862L,R		Carbon chip 4.7 kohm 1/10W	C200047260200

Ref. No.	Part No.	Part Name	Remarks
R863L,R		Carbon chip 470 ohm 1/10W	C200047160200
R864C,FL		Carbon chip 100 kohm 1/10W	C200010460200
FR,SL,SR,SW			
R866		Carbon chip 10 kohm 1/10W	C200010360200
R866C,FL		Carbon chip 4.7 kohm 1/10W	C200047260200
FR,SL,SR,SW			
R867		Carbon chip 100 kohm 1/10W	C200010460200
R867C,FL		Carbon chip 4.7 kohm 1/10W	C200047260200
FR,SL,SR,SW			
R868C,FL			
FR,SL,SR,SW			
R868C,FL			
FR,SL,SR,SW			
R870C,FL		Carbon chip 1 kohm 1/10W	C200010260200
FR,SL,SR,SW			
R871C,FL		Carbon chip 100 kohm 1/10W	C200010460200
FR,SL,SR,SW			
R872C,FL		Carbon chip 2.2 kohm 1/10W	C200022260200
FR,SL,SR,SW			
R880,881		Carbon chip 47 ohm 1/10W	C200047060200
R895		Carbon chip 100 kohm 1/10W	C200010460200
R911		Carbon chip 10 kohm 1/10W	C200010360200
R913		Carbon chip 1 Mohm 1/10W	C200010560200
R922		Carbon chip 4.7 kohm 1/10W	C200047260200
R923		Carbon chip 6.2 kohm 1/10W	C200062260200
R927		Carbon chip 75 ohm 1/10W	C200075060200
R928		Carbon chip 5.1 kohm 1/10W	C200051260200
R929		Carbon chip 8.2 kohm 1/10W	C200082260200
R930		Carbon chip 3 kohm 1/10W	C200030260200
R931		Carbon chip 6.2 kohm 1/10W	C200062260200
R931L,R		Carbon chip 18 kohm 1/10W	C200018360200
R932		Carbon chip 4.7 kohm 1/10W	C200047260200
R938		Carbon chip 470 kohm 1/10W	C200047460200
R940		Carbon chip 10 kohm 1/10W	C200010360200
R941		Carbon chip 470 ohm 1/10W	C200047160200
R942,943		Carbon chip 0 ohm 1/10W	C200000060200
R945,946		Carbon chip 0 ohm 1/10W	C200000060200
R947,948		Carbon chip 0 ohm 1/10W	C200000060200
R949		Carbon chip 47 ohm 1/10W	C200047060200
R950,951		Carbon chip 0 ohm 1/10W	C200000060200
R952-954		Carbon chip 100 ohm 1/10W	C200010160200
CAPACITORS GROUP			
C801		Ceramic chip 0.1µF/50V	D011104597200
C802,803		Ceramic chip 22pF/50V	D010220167200
C805		Ceramic chip 22pF/50V	D010220167200
C808		Ceramic chip 0.1µF/50V	D011104597200
C809		Electrolytic 100µF/10V	D040101082060
C810		Ceramic chip 0.1µF/50V	D011104597200
C811		Electrolytic 47µF/10V	D040470082050
C816		Ceramic chip 22pF/50V	D010220167200

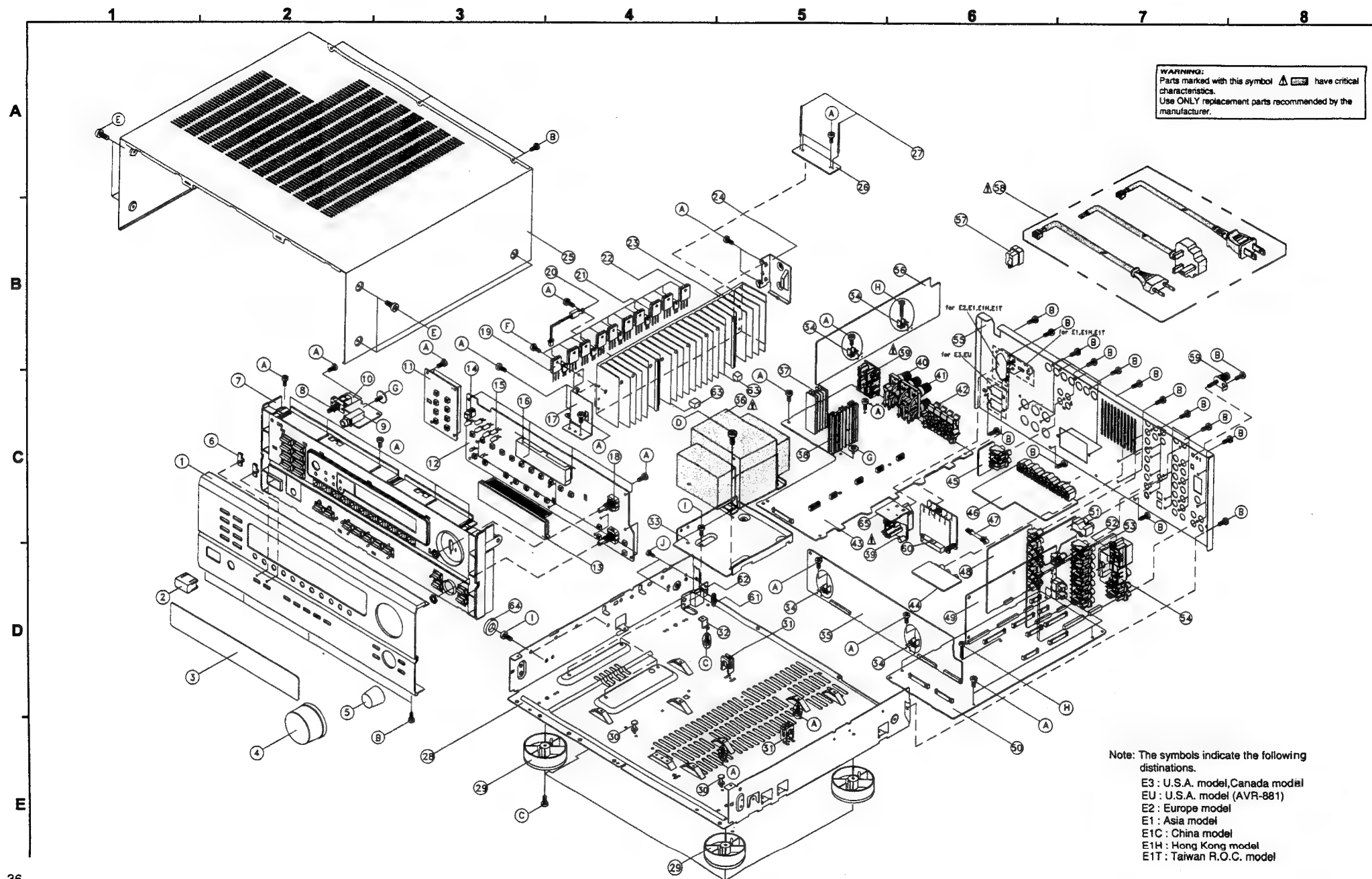
Ref. No.	Part No.	Part Name	Remarks
C817		Electrolytic 0.1µF/50V	D040R10087070
C818		Ceramic chip 0.1µF/50V	D011104597200
C820		Electrolytic 47µF/10V	D040470082050
C821		Electrolytic 1000µF/6.3V	D040102081060
C822,823		Ceramic chip 0.1µF/50V	D011104597200
C824		Electrolytic 100µF/10V	D040101082060
C825		Electrolytic 1µF/50V	D040010087050
C826		Electrolytic 10µF/35V	D040100085050
C827		Ceramic chip 0.1µF/50V	D011104597200
C828		Ceramic chip 0.01µF/50V	D011103777200
C829		Electrolytic 10µF/35V	D040100085050
C830,832		Ceramic chip 0.1µF/50V	D011104597200
C836		Electrolytic 220µF/6.3V	D040221061050
C837,838		Ceramic chip 0.1µF/50V	D011104597200
C839		Ceramic chip 0.22µF/50V	D011224597200
C840		Electrolytic 2.2µF/50V	D0402R2087250
C841		Electrolytic 47µF/10V	D040470082050
C842		Ceramic chip 0.1µF/50V	D011104597200
C843		Electrolytic 100µF/10V	D040101082060
C844		Ceramic chip 0.1µF/50V	D011104597200
C854,855		Electrolytic 100µF/25V	D040101084060
C856-863		Ceramic chip 0.1µF/50V	D011104597200
C864L,R		Electrolytic 10µF/35V	D040100085050
C865L,R		Ceramic chip 100pF/50V	D010101167200
C869L,R		Ceramic chip 100pF/50V	D010101167200
C871L,R		Ceramic chip 1000pF/50V	D011102777200
C873C,FL		Ceramic chip 680pF/50V	D010681167200
FR,SL,SR,SW			
C874C,FL			
FR,SL,SR,SW			
C875C,FL		Electrolytic 10µF/35V	D040100085050
FR,SL,SR,SW			
C876C,FL		Ceramic chip 3300pF/50V	D011332777200
FR,SL,SR,SW			
C878		Electrolytic 100µF/10V	D040101082060
C880C,FL		Electrolytic 10µF/35V	D040100085050
FR,SL,SR,SW			
C894,896		Ceramic chip 0.1µF/50V	D011104597200
C908,909		Ceramic chip 27pF/50V	D010270167200
C916		Ceramic chip 0.1µF/50V	D011104597200
C917		Electrolytic 10µF/35V	D040100085050
C918		Ceramic chip 0.1µF/50V	D011104597200
C919		Ceramic chip 0.01µF/50V	D011103777200
C920		Ceramic chip 0.1µF/50V	D011104597200
C921		Ceramic chip 0.01µF/50V	D011103777200
C923,925		Ceramic chip 0.1µF/50V	D011104597200
C926		Electrolytic 10µF/35V	D040100085050
C931,935		Ceramic chip 0.01µF/50V	D011103777200
C936		Ceramic chip 0.1µF/50V	D011104597200
C937		Electrolytic 10µF/35V	D040100085050
C938		Electrolytic 1µF/50V	D040010087050

Ref. No.	Part No.	Part Name	Remarks
C939,940		Ceramic chip 0.01µF/50V	D011103777200
C943		Electrolytic 0.1µF/50V	D040R10087070
C944		Ceramic chip 0.01µF/50V	D011103777200
C945		Ceramic chip 1000pF/50V	D011102777200
C946,947		Ceramic chip 0.1µF/50V	D011104597200
C948		Electrolytic 10µF/35V	D040100085050
C949		Electrolytic 2.2µF/50V	D0402R2087250
C950		Ceramic chip 0.1µF/50V	D011104597200
C951		Electrolytic 100µF/10V	D040101082060
C952,953		Ceramic chip 0.1µF/50V	D011104597200
C954,955		Ceramic chip 0.01µF/50V	D011103777200
C956		Ceramic chip 1000pF/50V	D011102777200
OTHER PARTS GROUP			
C9801,	963 0050 502	Chip emit	761101000020 20
803-805,			
807-820,			
828,840			
CN801	963 0046 707	16P connector socket	L101352371810 1
CN802	963 0050 609	18P connector socket	L101352371810 1
CN803	963 0050 306	6P connector socket	L101352370610 1
FB801C,FL	963 0050 706	Beads inductor	7610035500010 8
FR,SL,SR,SW			
FB802L,R			
L801,802	963 0050 803	Inductor 4.7µH	D3304R7000150 2
L803	963 0050 900	Inductor 2.2µH	D3302R2000150 1
L805	963 0050 803	Inductor 4.7µH	D3304R7000150 1
L807	963 0050 900	Inductor 2.2µH	D3302R2000150 1
XTAL801	960 0180 907	Crystal 12.288MHz	E80012R288020 1
—	960 0180 800	Optical connector (GP1F37R1)	E100137000010 2
—	963 0052 500	1P pin jack	G800010003100 1

VOLTAGE SEL P.W.B. UNIT

Ref. No.	Part No.	Part Name	Remarks	Qty
OTHER PARTS GROUP				
CN105	963 0059 202	2P connector cord	L000151020040 for E1,E1H,E1T	1
CN903	963 0058 805	2P connector cord	L000101020070 for E1,E1H,E1T	1
CP901	963 0061 203	5P connector base	L104353280500 for E1,E1H,E1T	1
CP902	963 0059 309	3P connector base	L000151030030 for E1,E1H,E1T	1
F101	960 0142 802	Fuse 2.5A	G650252251160 for E1,E1H,E1T	1
Δ F101A,B	960 0025 804	Fuse chip	G645000050010 for E1,E1H,E1T	2
Δ F102	963 0044 706	Fuse 3.15A	G60032251160 for E1,E1H,E1T	1
Δ F102A,B	960 0005 804	Fuse chip	G645000050010 for E1,E1H,E1T	2
Δ F201	963 0057 107	Fuse 5.5A	G660832251160 for E1,E1H,E1T	1
Δ F301A,B	960 0005 804	Fuse chip	G645000050010 for E1,E1H,E1T	2
JK911	960 0143 203	AC outlet	G435040110000 for E1,E1H,E1T	1
JK912	963 0056 904	SLIDE SW	G060268320010 for E1,E1H,E1T	1
—	963 0044 602	Supporter	4070210182000 for E1,E1H,E1T	2
—	963 0051 103	Spacer	4300210062000 for E1,E1H,E1T	2

# EXPLODED VIEW



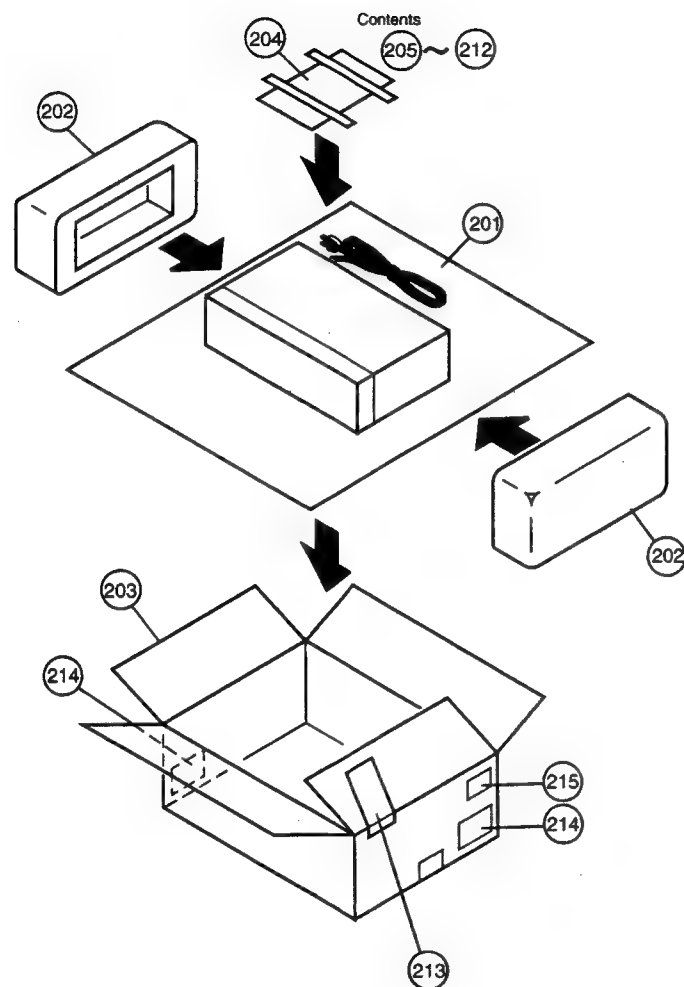
Note: The symbols in the column "Remarks" indicate the following destinations.  
 E3: U.S.A. model, Canada model  
 EU: U.S.A. model (AVR-881)  
 E2: Europe model  
 E1: Asia model  
 E1C: China model  
 E1H: Hong Kong model  
 E1T: Taiwan R.O.C. model

## PARTS LIST OF EXPLODED VIEW

Ref. No.	Part No.	Part Name	Remarks	Q'ty	Ref. No.	Part No.	Part Name	Remarks	Q'ty
	963 0042 507	Main P.W.B. assy	7025HK9907010 for E3,EU	1	2	960 0185 009	Power button	5090210201000 for Black model	1
	963 0042 536		7025HK9907040 for E2	1	2	963 0055 206	Power button(GO)	5087210201110 for Gold model	1
	963 0042 578		7025HK9907110 for E1,E1H,E1T	1	3	963 0054 702	Window	5077210242010	1
	963 0042 549		7025HK9907060 for E1C	1	4	963 0054 906	Main volume knob	5087210191010 for Black model	1
26		Video CNT P.W.B. assy		1	4	963 0055 002	Main volume knob(GO)MOLD	5087210191110 for E2(Gold model),E1T	1
43		Main P.W.B. assy		1	4	112 0839 008	Main volume knob(GO):AL	for E1,E1C,E1H	1
51		Input P.W.B. assy		1	5	963 0054 809	Select knob(BK)	5080210201000 for Black model	1
	963 0042 604	Processor P.W.B. assy	7025HK9907011 for E3,EU	1	5	963 0055 109	Select knob(GO)MOLD	5087210201100 for E2(Gold model),E1T	1
	963 0042 633		7025HK9907041 for E2	1	5	112 0835 015	Select knob(GO):AL	for E1,E1C,E1H	1
	963 0042 662		7025HK9907111 for E1,E1C,E1H,E1T	1	6	963 0051 307	Lens	3710210023000	2
12		Front P.W.B. assy		1	7	963 0055 604	Inner panel(BK)	3217210061000 for Black model	1
50		CPU P.W.B. assy		1	7	963 0055 617	Inner panel(GO)	3217210062000 for Gold model	1
	963 0042 701	CNT P.W.B. assy	7025HK9907012 for E3,EU	1	8	960 0176 209	Push switch	G000122000010 for E3,EU	1
	963 0042 730		7025HK9907042 for E2	1	8	963 0056 603	Push switch	G0000408900000 for E2,E1, E1C,E1H,E1T	1
	963 0042 769		7025HK9907112 for E1,E1C,E1H,E1T	1	9	960 0187 502	Head phone jack(D6.5)	G402038400031	1
	963 0042 743		7025HK9907062 for E1C	1	13	960 0180 509	FLT (16-ST-42GNK)	K530164200010	1
10		Head phone P.W.B. assy		1	14	960 0181 100	IC NJL64H380A	E940643800000 RMC301	1
11		Switch P.W.B. assy		1	15	960 0197 204	LED P15-RDHL50RDF4T	K500052015010 LED301-307	1
35		Cnt P.W.B. assy		1	16	960 0184 408	FLT holder	4320200026000	1
44		EXT-IN P.W.B. assy		1	17		Heat sink bracket F	4010210396000	1
45		Preout P.W.B. assy		1	18	960 0181 207	Rotary encoder	G1211624204000 VEC301,302 for E3,EU,E2,E1T	2
46		S-Video P.W.B. assy		1	18	212 0422 003	Rotary encoder	VEC301,302 for E1,E1C,E1H	2
48		Video P.W.B. assy		1	19	963 0044 107	Transistor 2SB1560Y	J5011560Y00000 Q102C,F,FR,SL,SR	5
53		Tuner P.W.B. assy		1	20	960 0187 900	Posistor	F320161001020	1
65		Outlet P.W.B. assy	for E2	1	21	963 0058 106	Transistor 2SD947F	J503947F000000 Q103C,F,FR,SL,SR	5
	963 0042 808	Pre-Amp P.W.B. assy	7025HK9907013	1	22	963 0044 204	Transistor 2SD2390Y	J5032390Y00000 Q101C,F,FR,SL,SR	5
56		Pre-Amp P.W.B. assy		1	23		Heat sink	2120210128000	1
	963 0042 905	DSP P.W.B. assy	7025HK9907014	1	24	960 0184 204	Heat sink bracket II	4010210386000	1
49		DSP P.W.B. assy		1	25	960 0183 218	Top cover	3000210026000 for E3,EU	1
	963 0060 110	Voltage sel P.W.B. assy	7025HK9907105 for E1,E1H,E1T	1	25	960 0183 205	Top cover	3000210026001 for E2(Black model)	1
		Voltage sel P.W.B. assy	for E1,E1H,E1T	1	25	963 0055 507	Top cover	3000210026101 for Gold model	1
1	963 0055 303	Front panel	3067210238000 for E3	1	27		Wire clamp	4330000120000	2
1	963 0055 329	Front panel	3067210238060 for EU	1					
1	963 0055 316	Front panel	3067210238020 for E2(Black model)	1					
1	963 0055 413	Front panel	3067210238010 for E2(Gold model)	1					
1	963 0055 426	Front panel	3067210238040 for E1,E1C,E1H,E1T	1					

Ref. No.	Part No.	Part Name	Remarks	Q'ty	Ref. No.	Part No.	Part Name	Remarks	Q'ty
28	963 0055 808	Chassis	3200210146100 for E3,EU	1	28	963 0055 808	Chassis	3200210146100 for E2,E1, E1C,E1H,E1T	1
28	960 0198 216	Chassis	3200210146301 for E2,E1, E1C,E1H,E1T	1	29	960 0183 904	Foot assy	4008020061010	4
30	963 0051 103	Card spacer	4300210062000	2	31	960 0136 605	PCB supporter	4070001801010	2
32	960 0184 107	Supporter bracket	4010210208000	1	33	960 0192 306	Trans bracket	4010210466000	1
34	960 0184 000	Screw bracket	4010210196000	2	34	960 0184 000	Screw bracket	4010210196000	2
37	—	Heat sink	2120044308010	1	37	—	Heat sink	2120044308010	1
38	—	Heat sink	2120043538050	1	38	—	Heat sink	2120043538050	1
40	960 0194 809	2P speaker terminal	G611021078110 JK103	1	40	960 0194 809	2P speaker terminal	G611021078110 JK103	1
41	960 0188 606	4P speaker terminal	G612041037310 JK102	1	41	960 0188 606	4P speaker terminal	G612041037310 JK102	1
42	960 0194 304	8P speaker terminal	G598041680020 JK101	1	42	960 0194 304	8P speaker terminal	G598041680020 JK101	1
47		PCB holder	4420010173010	1	47		PCB holder	4420010173010	1
52	960 0184 602	Plate	4470210146000	1	52	960 0184 602	Plate	4470210146000	1
54	963 0054 003	Shield tuner pack	3070210056000	1	54	963 0054 003	Shield tuner pack	3070210056000	1
55	963 0055 701	Back panel	3207210256000 for E3	1	55	963 0055 701	Back panel	3207210256000 for EU	1
55	963 0055 756	Back panel	3207210256050 for E2	1	55	963 0055 714	Back panel	3207210256020 for E1,E1H,E1T	1
55	963 0055 730	Back panel	3207210256040 for E1,E1H,E1T	1	55	963 0055 727	Back panel	3207210256030 for E1C	1
57	960 0192 403	Cord bush	4380210002000	1	57	960 0192 403	Cord bush	4380210002000	1
58	960 0192 104	AC cord assy	L068020030010 for E3,EU	1	58	960 0192 104	AC cord assy	L068020030010 for E2	1
59	960 0192 304	AC cord assy	L068040011010 for E2	1	59	960 0192 304	AC cord assy	L068040011010 for E1,E1H,E1T	1
60	963 0055 408	AC cord assy	L1080400000000 for E1,E1H,E1T	1	60	963 0055 408	AC cord assy	L1080400000000 for E1C	1
61	960 0192 103	AC cord assy	L0680000000040 for E1H	1	61	960 0192 103	AC cord assy	L0680000000040 for E1H	1
62	963 0044 505	Side bracket	4010210236000 for E2,E1, E1C,E1H,E1T	1	62	963 0044 505	Side bracket	4010210236000 for E2,E1, E1C,E1H,E1T	1
63	963 0054 304	Heatsink cushion	4050210205000 for E2,E1, E1C,E1H,E1T	2	63	963 0054 304	Heatsink cushion	4050210205000 for EU,E2, E1,E1C,E1H,E1T	2
64	963 0051 200	Cushion	4050210165000 for E2,E1, E1C,E1H,E1T	2	64	963 0051 200	Cushion	4050210165000 for E2,E1, E1C,E1H,E1T	2
★	960 0093 104	Push rivet	2410040353010 for E2,E1, E1C,E1H,E1T	6	★	960 0093 104	Push rivet	2410040353010 for E2,E1, E1C,E1H,E1T	6
★	963 0061 407	FFC cable	L301186171850	1	★	963 0061 407	FFC cable	L301186171850	1
SCREWS									
A	963 0018 007	Screw (2S 3x8 ZNY/BH)	B020030081B10	44	A	963 0018 007	Screw (2S 3x8 ZNY/BH)	B020030081B10	44
B	960 0108 701	Screw (2S 3x10 DOT BK)	B020030103B11 for E3,EU,E2	43	B	960 0108 701	Screw (2S 3x10 DOT BK)	B020030103B11 for E1,E1H,E1T	43
B	960 0108 701	Screw (2S 3x10 DOT BK)	B020030103B11 for E1C	41	B	960 0108 701	Screw (2S 3x10 DOT BK)	B020030103B11 for E1C	41
C	963 0048 200	Screw (2S 3x10 ZNY/BH)	B020030101B10	5	C	963 0048 200	Screw (2S 3x10 ZNY/BH)	B020030101B10	5
D	960 9008 417	Screw (3S 4x8 ZNY/BH)	B028940081B10	4	D	960 9008 417	Screw (3S 4x8 ZNY/BH)	B028940081B10	4
E	963 0048 307	Screw (2S 4x8 DOT BK)	1500040083B10 for Black model	6	E	963 0048 307	Screw (2S 4x8 DOT BK)	1500040083B10 for Gold model	6
E	963 9004 012	Screw (2S 4x8 DOT NI)	1500040084B10 for E3	6	E	963 9004 012	Screw (2S 4x8 DOT NI)	1500040084B10 for E3	6
F	963 9004 009	Screw (2S 3x14 WASHER ZNY/H)	B018230141H10	15	F	963 9004 009	Screw (2S 3x14 WASHER ZNY/H)	B018230141H10	15
G	960 9008 420	Screw (2S 3x8 WASHER)	1500001456010	1	G	960 9008 420	Screw (2S 3x8 WASHER)	1500001456010	1
H	963 0018 104	Screw (2S 3x17 ZNY/BH)	B020030171B10	2	H	963 0018 104	Screw (2S 3x17 ZNY/BH)	B020030171B10	2
I	963 9004 025	Screw (3S 4x6 ZNY/BH)	B020740061B10	6	I	963 9004 025	Screw (3S 4x6 ZNY/BH)	B020740061B10	6
J	963 9004 041	Screw (2S 3x5 ZNY/BH)	B020030051B10 for E1,E1H,E1T,E2,E1C	2	J	963 9004 041	Screw (2S 3x5 ZNY/BH)	B020030051B10 for E1,E1H,E1T,E2,E1C	2

# PACKING VIEW

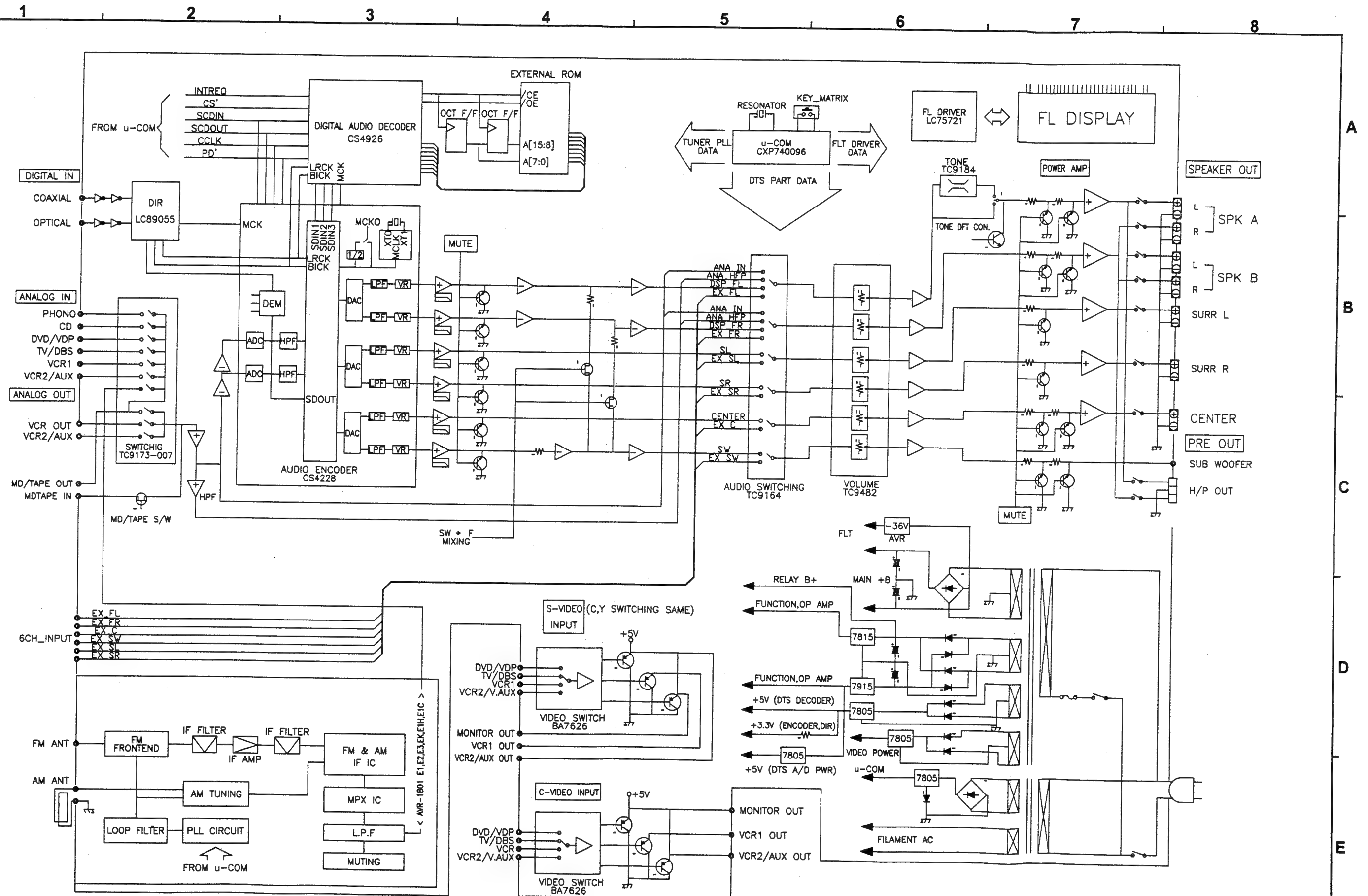


# PARTS LIST OF PACKING & ACCESSORIES

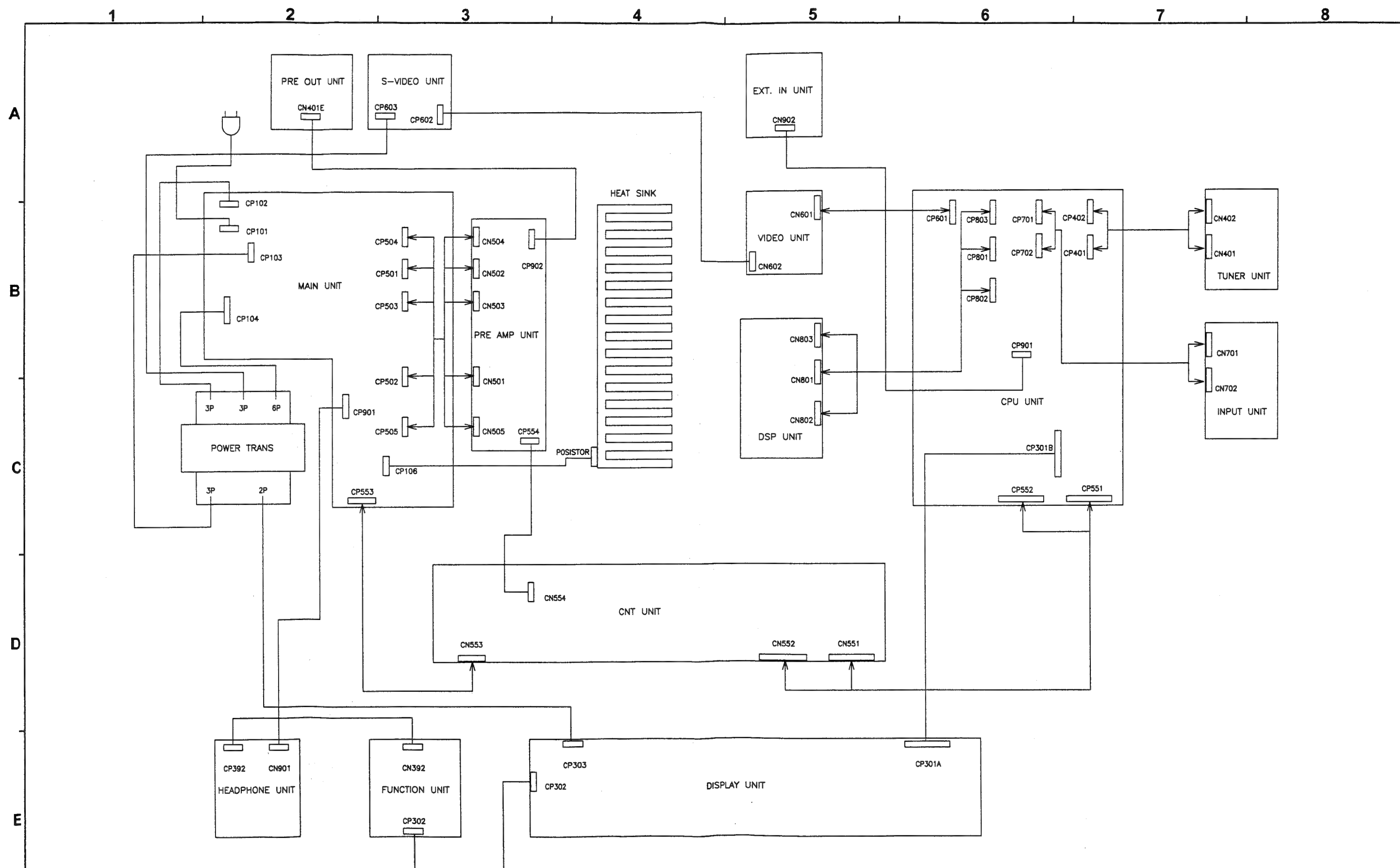
Notes: The symbols in the column "Remarks" indicate the following destinations.  
E3: U.S.A. model, Canada model  
EU: U.S.A. model (AVR-881)  
E2: Europe model  
E1: Asia model  
E1C: China model  
E1H: Hong Kong model  
E1T: Taiwan R.O.C. model

Ref. No.	Part No.	Part Name	Remarks	Qty
201	960 0185 601	Set poly bag	6330210019000	1
202	960 0185 504	Cushion	6230210124000	1
203	963 0054 511	Carton case	6007210140010	1
			for E3,E2	
203	963 0054 566	Carton case	6007210140040	1
			for EU	
203	963 0054 524	Carton case	6007210140030	1
			for E1,E1C,E1T	
203	963 0054 537	Carton case	6007210150020	1
			for E1H	
204	963 0045 106	Poly bag	6330000240000	1
205	963 0054 618	Instruction manual	5113598006	1
			for E3,EU	
205	963 0054 621	Instruction manual	5113599005	1
			for E2	
205	963 0054 650	Instruction manual	5113621009	1
			for E1,E1C,E1H,E1T	
205	963 0054 647	Instruction manual	5113623007	1
			for E1C	
206	515 0867 101	S.S. list	5777001620011	1
207	963 0052 308	AM loop antenna	E605010090000	1
208	963 0052 209	FM antenna	E605000030010	1
209	963 0043 001	Remoon RC-674	8300874000010	1
210	—	Battery (R6P/AA)	G670001R50010	2
211	963 0052 704	FM antenna adapter	L109000180010	1
212	963 0061 300	AC plug adapter	L10928300310A	1
			for E1T	
213	515 0817 009	DEL Warranty home	5778001470070	1
			for E3,EU	
214	—	Control label	5500014920010	2
215	—	UPC label	5507002340010	1
			for E3	
215	—	UPC label	5507002340050	1
			for EU	
215	—	EAN label	5507002340040	1
			for E2(Black model)	
215	—	EAN label	5507002340030	1
			for E2(Gold model)	
★	513 3322 003	Label (RDS, RADIO TEXT)	for E2	2
★	—	Label (CCIB)	5500020160030	2
			for E1C	
★	513 3341 000	Carton label (A)	for E1,E1C,E1H,E1T	1
★	513 3342 009	Carton label (B)	for E1,E1C,E1H,E1T	1
★	513 9111 001	Color label (Gold)	for Gold mode	2
★	963 0055 905	Pad	6240210004000	2
			for E1H	

# BLOCK DIAGRAMS

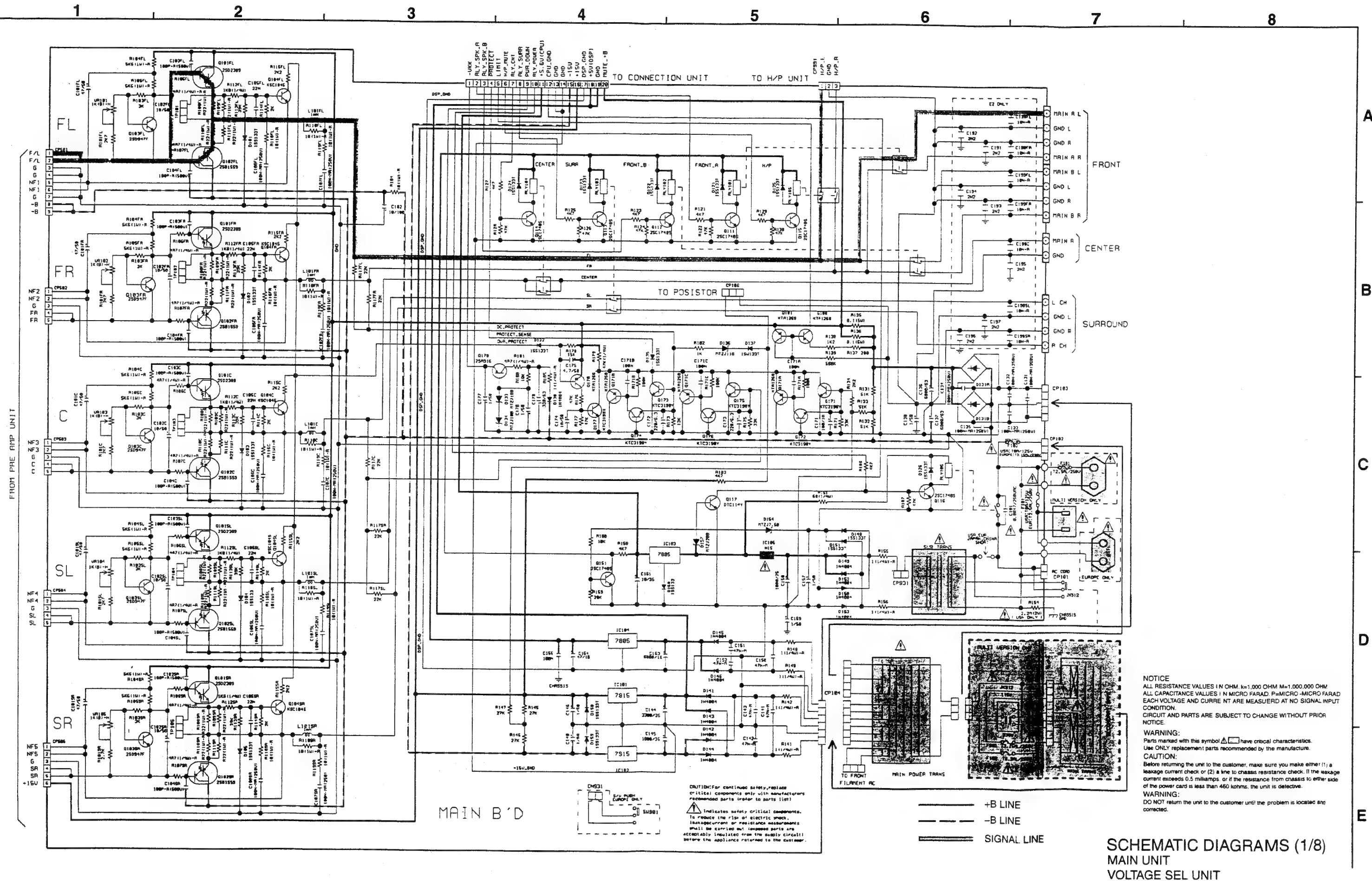


# WIRING DIAGRAM



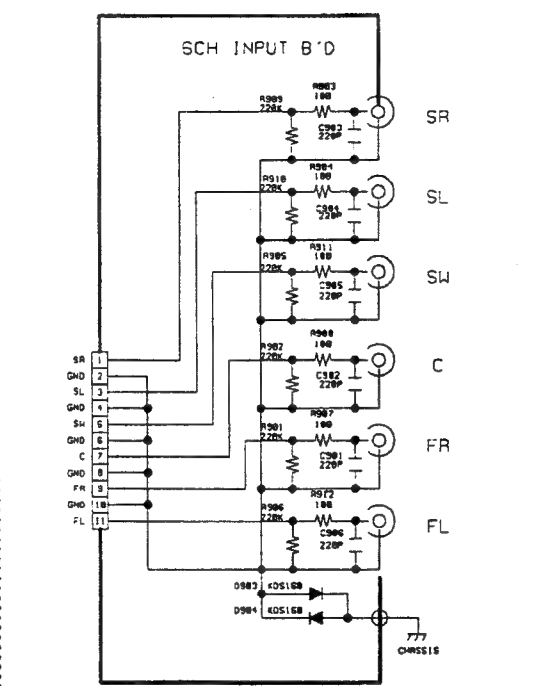
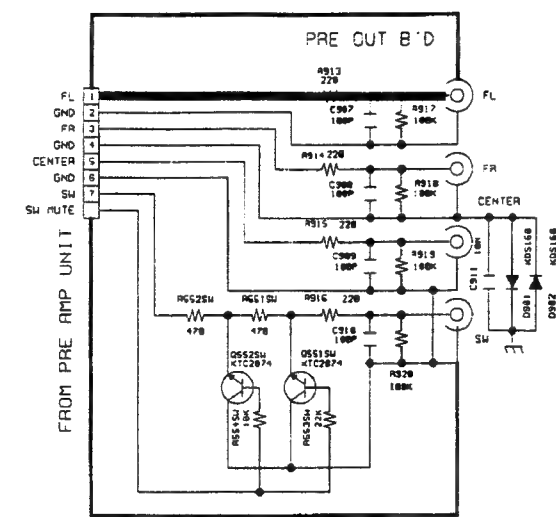
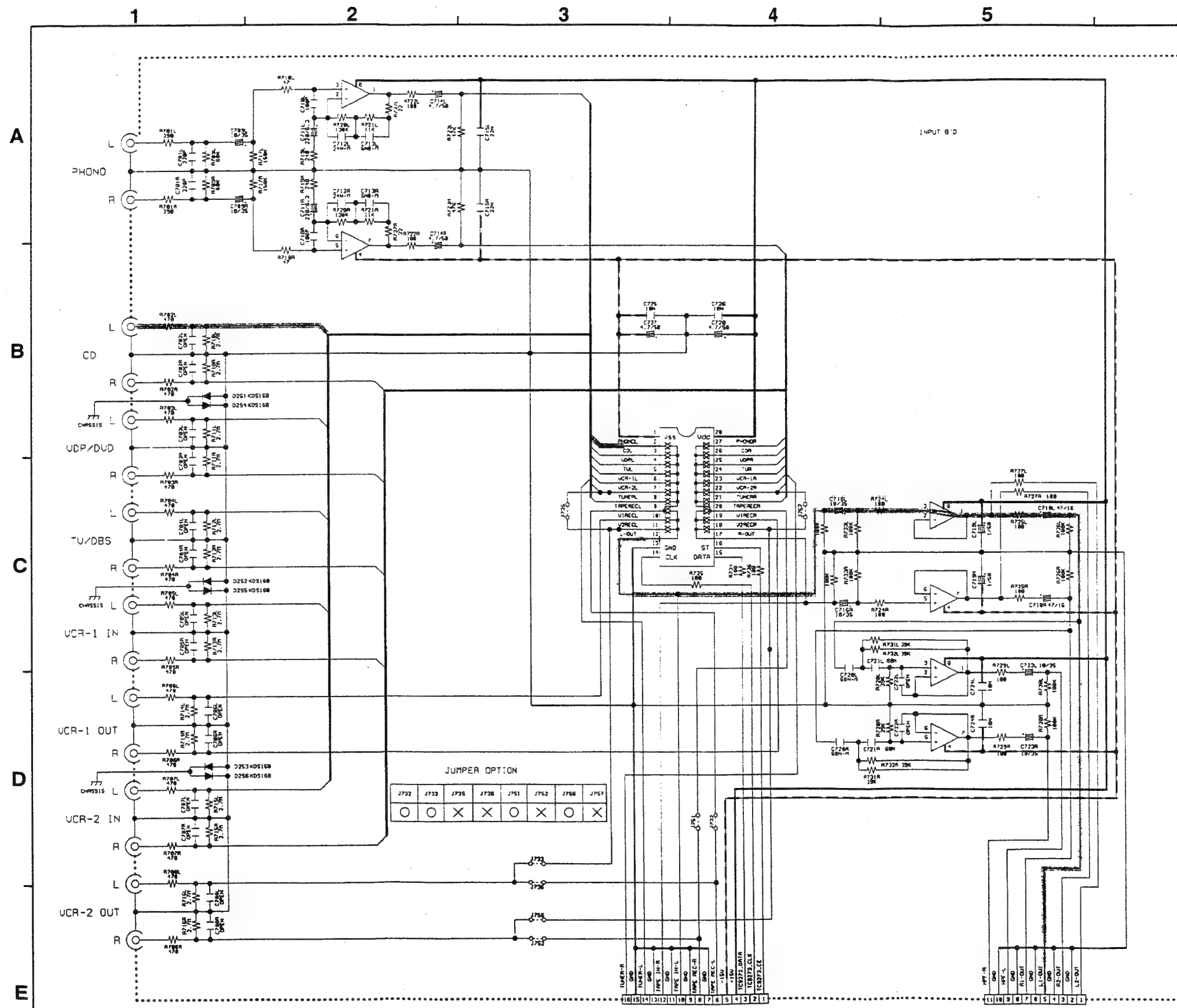


## SCHEMATIC DIAGRAMS (1/8)





# SCHEMATIC DIAGRAMS (2/8)



— +B LINE  
 --- -B LINE  
 ——— SIGNAL LINE

**NOTICE**  
 ALL RESISTANCE VALUES IN OHM, K=1,000 OHM, M=1,000,000 OHM  
 ALL CAPACITANCE VALUES IN MICRO FARAD, P=PICTO-MICRO FARAD  
 EACH VOLTAGE AND CURRENT ARE MEASURED AT NO SIGNAL INPUT  
 CONDITION.  
 CIRCUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR  
 NOTICE.

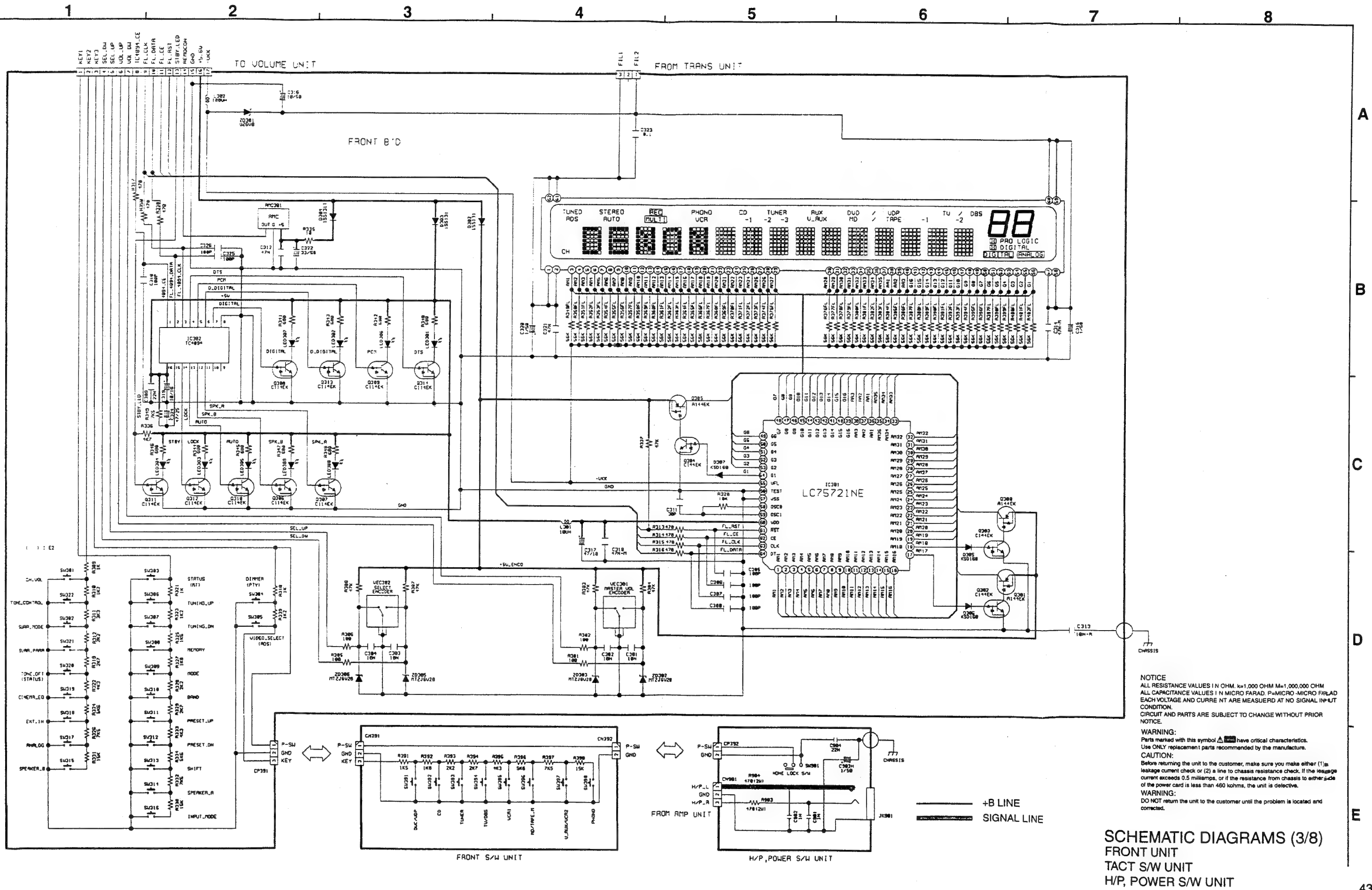
**WARNING:**  
 Parts marked with this symbol have critical characteristics.  
 Use ONLY replacement parts recommended by the manufacturer.

**CAUTION:**  
 Before returning the unit to the customer, make sure you make either (1) a  
 leakage current check or (2) a line to chassis resistance check. If the leakage  
 current exceeds 0.5 milliamperes, or if the resistance from chassis to either side  
 of the power card is less than 480 kohms, the unit is defective.

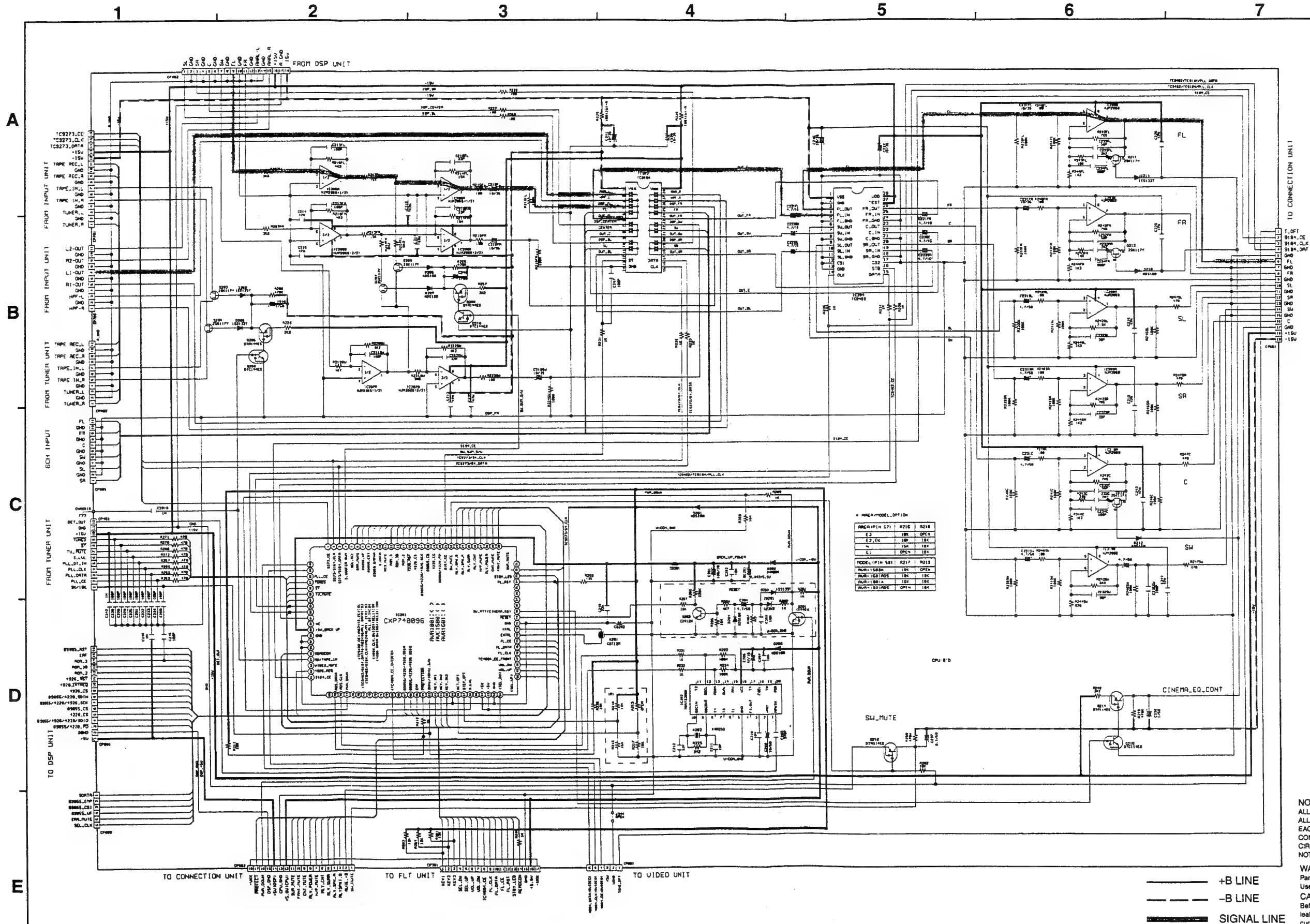
**WARNING:**  
 DO NOT return the unit to the customer until the problem is located and  
 corrected.

SCHEMATIC DIAGRAMS (2/8)  
 INPUT UNIT

# SCHEMATIC DIAGRAMS (3/8)



# SCHEMATIC DIAGRAMS (4/8)



SCHEMATIC DIAGRAMS (4/8)  
INPUT UNIT

**NOTICE**  
ALL RESISTANCE VALUES IN OHM, K=1,000 OHM, M=1,000,000 OHM  
ALL CAPACITANCE VALUES IN MICROFARAD, P=MICRO-MICROFARAD  
EACH VOLTAGE AND CURRENT ARE MEASURED AT NO SIGNAL INPUT  
CONDITION.  
CIRCUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR  
NOTICE.

**WARNING:**  
Parts marked with this symbol  have critical characteristics.  
Use ONLY replacement parts recommended by the manufacturer.

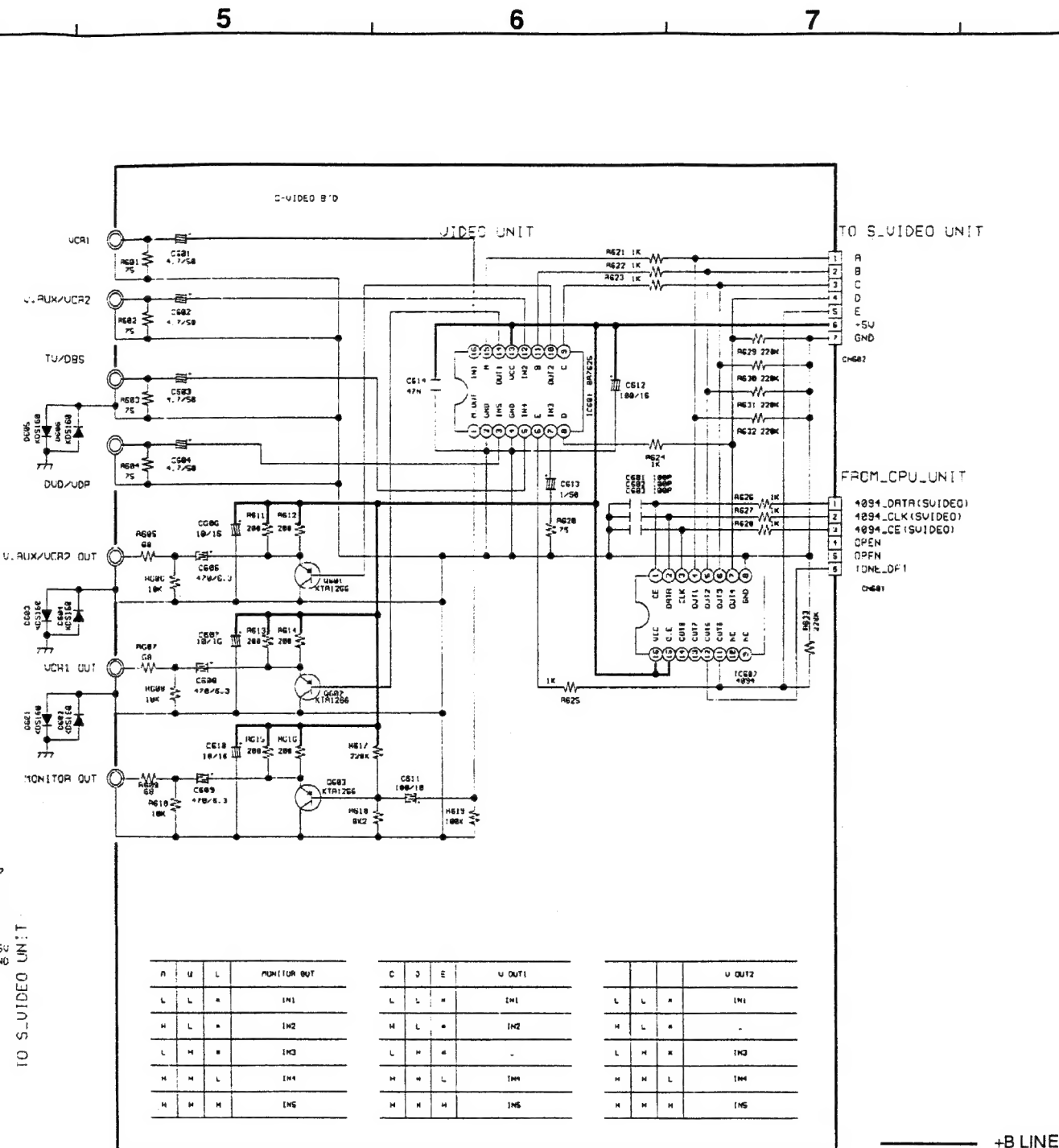
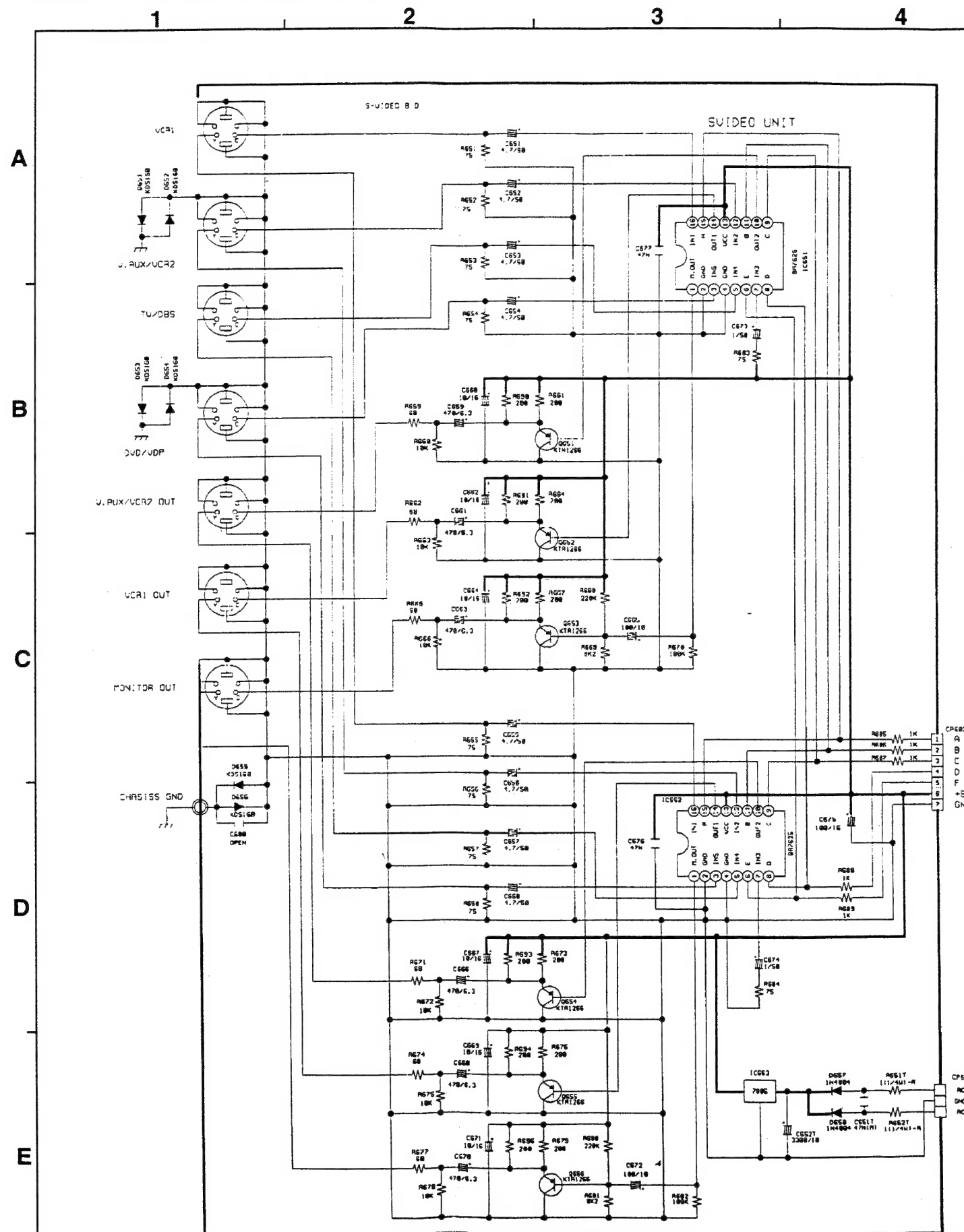
**CAUTION:**  
Before returning the unit to the customer, make sure you make either (1) a leakage current check or (2) a line to chassis resistance check. If the leakage current exceeds 0.5 millamps, or if the resistance from chassis to either side of the power cord is less than 460 kohms, the unit is defective.

**WARNING:**  
DO NOT return the unit to the customer until the problem is located and corrected.






# SCHEMATIC DIAGRAMS (6/8)

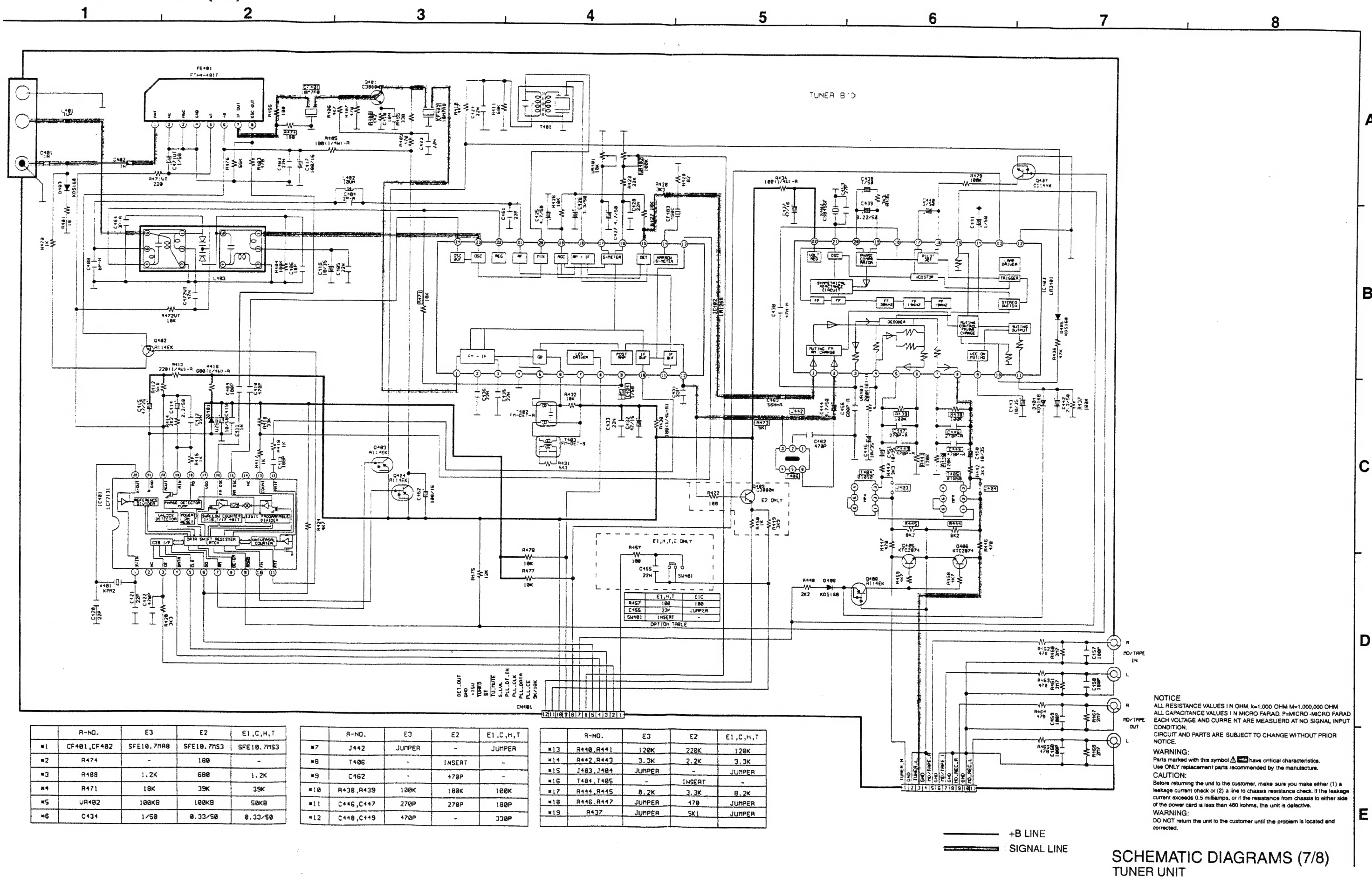


**NOTICE**  
 ALL RESISTANCE VALUES IN OHM, K=1,000 OHM, M=1,000,000 OHM  
 ALL CAPACITANCE VALUES IN MICRO-FARAD, P=MICRO-MICRO-FARAD  
 EACH VOLTAGE AND CURRENT ARE MEASURED AT NO SIGNAL INPUT CONDITION.  
 CIRCUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE.

**WARNING:**  
 Parts marked with this symbol  have critical characteristics. Use ONLY replacement parts recommended by the manufacturer.  
**CAUTION:**  
 Before returning the unit to the customer, make sure you make either (1) a leakage current check or (2) a line to chassis resistance check. If the leakage current exceeds 0.5 milliamps, or if the resistance from chassis to either side of the power card is less than 460 kohms, the unit is defective.  
**WARNING:**  
 DO NOT return the unit to the customer until the problem is located and corrected.

## SCHEMATIC DIAGRAMS (6/8) VIDEO UNIT / S-VIDEO UNIT

## SCHEMATIC DIAGRAMS (7/8)



# SCHEMATIC DIAGRAMS (8/8)

